

ANALYTICAL REPORT

Job Number: 280-70279-1

Job Description: GSI - McConnell AFB - SWMU 207

For:

GSI Environmental, Inc
9600 Great Hills Trail, Ste 350E
Austin, TX 78759

Attention: Anna Zabierek

M. Elaine Walker

Approved for release.
Elaine M Walker
Project Manager II
6/25/2015 4:49 PM

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06/25/2015

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

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Table of Contents

Cover Title Page	1
Data Summaries	5
Report Narrative	5
Manual Integration Summary	7
Sample Summary	27
Executive Summary	28
Method Summary	29
Method / Analyst Summary	30
Sample Datasheets	31
Surrogate Summary	45
QC Data Summary	46
Data Qualifiers	69
QC Association Summary	70
Lab Chronicle	73
Reagent Traceability	77
COAs	103
Certification Summary	209
Organic Sample Data	210
GC/MS VOA	210
Method 8260B	210
Method 8260B QC Summary	211
Method 8260B Sample Data	226
Standards Data	276
Method 8260B ICAL Data	276
Method 8260B CCAL Data	454
Raw QC Data	554

Table of Contents

Method 8260B Tune Data	554
Method 8260B Blank Data	566
Method 8260B LCS/LCSD Data	584
Method 8260B Run Logs	601
Inorganic Sample Data	628
Metals Data	628
Met Cover Page	629
Met Sample Data	630
Met QC Data	632
Met ICV/CCV	632
Met CRQL	638
Met Blanks	640
Met ICSA/ICSAB	644
Met MS/MSD/PDS	648
Met LCS/LCSD	654
Met Serial Dilution	656
Met MDL	658
Met IECF	662
Met Linear Ranges	680
Met Preparation Log	682
Met Analysis Run Log	684
Met Raw Data	690
Met Prep Data	1539
General Chemistry Data	1541
Gen Chem Cover Page	1542
Gen Chem Sample Data	1543

Table of Contents

Gen Chem QC Data	1544
Gen Chem ICV/CCV	1544
Gen Chem Blanks	1548
Gen Chem MS/MSD/PDS	1549
Gen Chem Duplicates	1551
Gen Chem LCS/LCSD	1552
Gen Chem MDL	1555
Gen Chem Analysis Run Log	1565
Gen Chem Raw Data	1572
Gen Chem Prep Data	1723
Shipping and Receiving Documents	1736
Client Chain of Custody	1737
Sample Receipt Checklist	1738

CASE NARRATIVE
Client: GSI Environmental, Inc
Project: GSI - McConnell AFB - SWMU 207
Report Number: 280-70279-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

Six samples were received on 06/05/2015; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 1.9°C.

The Chain of Custody does not list a sample collection time for trip blank sample 54403-TB19-0615 (280-70279-1). The sample was logged with a collection time of 09:00 per instructions received on Friday, June 05, 2015.

The Chain of Custody requests that samples 54400-MW43-0615 (280-70279-3) and 54400-MW55D-0615 (280-70279-6) be analyzed on a rush turnaround time for the VOC analysis. Due to current laboratory capacity, the fastest turnaround time that TA Denver is able to provide for the requested analyses is 10 business days.

The rush VOC analysis for samples 54400-MW43-0615 (280-70279-3) and 54400-MW55D-0615 (280-70279-6) were reported under SDG 280-70279-2 on a 10 business day turnaround time with a Level II report. The results of these rush samples, along with the other samples/analyses are reported with a Level IV report and EDD in this SDG on a standard 15 business day turnaround time.

Please note - Total Phosphorus and Sulfite, which the TestAmerica Denver laboratory does not hold DoD ELAP certification for, are being reported under the TestAmerica Standard QC program, and not as a DoD QSM 5.0 report under separate cover in SDG 280-70279-3.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples 54403-TB19-0615 (280-70279-1), 54402-EB18-0615 (280-70279-2), 54400-MW43-0615 (280-70279-3), 54400-MW56-0615 (280-70279-4), 54400-MW55S-0615 (280-70279-5) and 54400-MW55D-0615 (280-70279-6) were analyzed for volatile organic compounds (GC/MS) in accordance with 8260B. The samples were analyzed on 06/09/2015 and 06/12/2015.

1,2,3-Trichlorobenzene and Methylene Chloride were detected in method blank MB 280-281058/6 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". However, because the result concentrations were less than ½ the respective reporting limit, no corrective action was necessary.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DISSOLVED METALS (ICP)

Sample 54400-MW55D-0615 (280-70279-6) was analyzed for Dissolved Metals (ICP) in accordance with 6010C. The sample was prepared on 06/12/2015 and analyzed on 06/15/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL METALS (ICP)

Sample 54400-MW55D-0615 (280-70279-6) was analyzed for Total Metals (ICP) in accordance with 6010C. The sample was prepared on 06/10/2015 and analyzed on 06/16/2015.

Sodium was detected in method blank MB 280-280888/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". However, because the result concentration was less than ½ the reporting limit, no corrective action was necessary.

The Post Digestion Spike (PDS) performed on sample 54400-MW55D-0615 (280-70279-6) in prep batch 280-280888 was outside control limits for Calcium, and the associated sample results have been flagged "J".

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ALKALINITY

Sample 54400-MW55D-0615 (280-70279-6) was analyzed for Alkalinity in accordance with SM20 2320B. The sample was analyzed on 06/12/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL DISSOLVED SOLIDS

Sample 54400-MW55D-0615 (280-70279-6) was analyzed for total dissolved solids in accordance with SM20 2540C. The sample was analyzed on 06/05/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HEXAVALENT CHROMIUM

Sample 54400-MW55D-0615 (280-70279-6) was analyzed for hexavalent chromium in accordance with 7196A. The sample was analyzed on 06/05/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ANIONS

Sample 54400-MW55D-0615 (280-70279-6) was analyzed for Anions, Ion Chromatography in accordance with 9056A. The sample was analyzed on 06/05/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Instrument ID: VMS_H Analysis Batch Number: 279265Lab Sample ID: IC 280-279265/9 Client Sample ID: _____Date Analyzed: 05/28/15 00:18 Lab File ID: H2949.D GC Column: DB-624 (75.53) ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2,4-Trichlorobenzene	16.08	Assign Peak	moanm	06/02/15 08:03
1,2,3-Trichlorobenzene	16.53	Assign Peak	moanm	06/02/15 08:03

Lab Sample ID: IC 280-279265/10 Client Sample ID: _____Date Analyzed: 05/28/15 00:40 Lab File ID: H2950.D GC Column: DB-624 (75.53) ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	2.25	Baseline	wickhamt	05/28/15 06:21
1,2,4-Trichlorobenzene	16.08	Assign Peak	moanm	06/02/15 08:03
1,2,3-Trichlorobenzene	16.53	Assign Peak	moanm	06/02/15 08:03

Lab Sample ID: IC 280-279265/11 Client Sample ID: _____Date Analyzed: 05/28/15 01:03 Lab File ID: H2951.D GC Column: DB-624 (75.53) ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	2.25	Shouldering	wickhamt	05/28/15 06:22
1,2,4-Trichlorobenzene	16.07	Assign Peak	moanm	06/02/15 08:04
1,2,3-Trichlorobenzene	16.52	Assign Peak	moanm	06/02/15 08:04

Lab Sample ID: IC 280-279265/12 Client Sample ID: _____Date Analyzed: 05/28/15 01:25 Lab File ID: H2952.D GC Column: DB-624 (75.53) ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2,4-Trichlorobenzene	16.09	Assign Peak	moanm	06/02/15 08:04
1,2,3-Trichlorobenzene	16.54	Assign Peak	moanm	06/02/15 08:04

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Instrument ID: VMS_H Analysis Batch Number: 279265Lab Sample ID: IC 280-279265/13 Client Sample ID: _____Date Analyzed: 05/28/15 01:48 Lab File ID: H2953.D GC Column: DB-624 (75.53) ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2,4-Trichlorobenzene	16.07	Assign Peak	moanm	06/02/15 08:04
1,2,3-Trichlorobenzene	16.53	Assign Peak	moanm	06/02/15 08:04

Lab Sample ID: IC 280-279265/14 Client Sample ID: _____Date Analyzed: 05/28/15 02:10 Lab File ID: H2954.D GC Column: DB-624 (75.53) ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2,4-Trichlorobenzene	16.09	Assign Peak	moanm	06/02/15 08:04
1,2,3-Trichlorobenzene	16.54	Assign Peak	moanm	06/02/15 08:04

Lab Sample ID: IC 280-279265/15 Client Sample ID: _____Date Analyzed: 05/28/15 02:33 Lab File ID: H2955.D GC Column: DB-624 (75.53) ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2,4-Trichlorobenzene	16.08	Assign Peak	moanm	06/02/15 08:05
1,2,3-Trichlorobenzene	16.53	Assign Peak	moanm	06/02/15 08:05

Lab Sample ID: ICV 280-279265/22 Client Sample ID: _____Date Analyzed: 05/28/15 02:55 Lab File ID: H2956.D GC Column: DB-624 (75.53) ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2,4-Trichlorobenzene	16.09	Assign Peak	moanm	06/02/15 08:07
1,2,3-Trichlorobenzene	16.54	Assign Peak	moanm	06/02/15 08:07

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Instrument ID: VMS_H Analysis Batch Number: 279265Lab Sample ID: IC 280-279265/16 Client Sample ID: _____Date Analyzed: 05/28/15 03:18 Lab File ID: H2957.D GC Column: DB-624 (75.53) ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetonitrile	3.80	Split Peak	wickhamt	05/28/15 06:50

Lab Sample ID: IC 280-279265/17 Client Sample ID: _____Date Analyzed: 05/28/15 03:40 Lab File ID: H2958.D GC Column: DB-624 (75.53) ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethanol	3.17	Shouldering	wickhamt	05/28/15 06:52
Acetonitrile	3.85	Split Peak	wickhamt	05/28/15 06:50

Lab Sample ID: IC 280-279265/18 Client Sample ID: _____Date Analyzed: 05/28/15 04:03 Lab File ID: H2959.D GC Column: DB-624 (75.53) ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethanol	3.19	Shouldering	wickhamt	05/28/15 06:52

Lab Sample ID: IC 280-279265/20 Client Sample ID: _____Date Analyzed: 05/28/15 04:48 Lab File ID: H2961.D GC Column: DB-624 (75.53) ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isopropyl alcohol	3.63	Assign Peak	wickhamt	05/28/15 06:49

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Instrument ID: VMS_H Analysis Batch Number: 281475

Lab Sample ID: CCV 280-281475/2 Client Sample ID: _____

Date Analyzed: 06/11/15 19:03 Lab File ID: H3590.D GC Column: DB-624 (75.53 ID: 0.53 (mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	2.27	Poor chromatography	bergerb	06/11/15 19:32
trans-1,3-Dichloropropene	9.29	Split Peak	bergerb	06/11/15 19:32

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Instrument ID: VMS_Z Analysis Batch Number: 279871Lab Sample ID: IC 280-279871/9 Client Sample ID: _____Date Analyzed: 06/01/15 19:51 Lab File ID: Z8220.D GC Column: DB-624 (75.53 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dichloroethane	5.99	Assign Peak	bergerb	06/01/15 22:53

Lab Sample ID: IC 280-279871/11 Client Sample ID: _____Date Analyzed: 06/01/15 20:36 Lab File ID: Z8222.D GC Column: DB-624 (75.53 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	2.00	Shouldering	bergerb	06/01/15 23:38
tert-Butyl alcohol	3.58	Split Peak	bergerb	06/02/15 00:01
2-Chlorotoluene	13.66	Assign Peak	bergerb	06/01/15 23:38

Lab Sample ID: IC 280-279871/12 Client Sample ID: _____Date Analyzed: 06/01/15 20:59 Lab File ID: Z8223.D GC Column: DB-624 (75.53 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	1.99	Shouldering	bergerb	06/01/15 23:37
tert-Butyl alcohol	3.57	Poor chromatography	bergerb	06/01/15 23:37
2-Chlorotoluene	13.67	Assign Peak	bergerb	06/01/15 23:37

Lab Sample ID: IC 280-279871/13 Client Sample ID: _____Date Analyzed: 06/01/15 21:22 Lab File ID: Z8224.D GC Column: DB-624 (75.53 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	1.99	Shouldering	bergerb	06/01/15 22:51
tert-Butyl alcohol	3.57	Poor chromatography	bergerb	06/01/15 22:51
2-Chlorotoluene	13.67	Assign Peak	bergerb	06/01/15 22:51

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Instrument ID: VMS_Z Analysis Batch Number: 279871Lab Sample ID: IC 280-279871/14 Client Sample ID: _____Date Analyzed: 06/01/15 21:45 Lab File ID: Z8225.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	2.00	Shouldering	bergerb	06/01/15 23:35
tert-Butyl alcohol	3.57	Poor chromatography	bergerb	06/01/15 23:35
2-Chlorotoluene	13.66	Assign Peak	bergerb	06/01/15 23:35

Lab Sample ID: IC 280-279871/15 Client Sample ID: _____Date Analyzed: 06/01/15 22:07 Lab File ID: Z8226.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	2.02	Shouldering	bergerb	06/01/15 23:33
tert-Butyl alcohol	3.59	Poor chromatography	bergerb	06/01/15 23:33
2-Chlorotoluene	13.67	Assign Peak	bergerb	06/01/15 23:33

Lab Sample ID: ICV 280-279871/22 Client Sample ID: _____Date Analyzed: 06/01/15 22:30 Lab File ID: Z8227.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Chlorotoluene	13.65	Assign Peak	bergerb	06/02/15 01:53

Lab Sample ID: IC 280-279871/17 Client Sample ID: _____Date Analyzed: 06/01/15 23:35 Lab File ID: Z8229.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isopropyl alcohol	3.17	Split Peak	bergerb	06/02/15 01:59
Tert-amyl methyl ether	6.18	Poor chromatography	bergerb	06/02/15 02:04
n-Butanol	6.83	Split Peak	bergerb	06/02/15 02:04

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Instrument ID: VMS_Z Analysis Batch Number: 279871Lab Sample ID: IC 280-279871/18 Client Sample ID: _____Date Analyzed: 06/01/15 23:58 Lab File ID: Z8230.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isopropyl alcohol	3.15	Assign Peak	bergerb	06/02/15 02:06
Tert-amyl methyl ether	6.18	Poor chromatography	bergerb	06/02/15 02:06

Lab Sample ID: ICIS 280-279871/19 Client Sample ID: _____Date Analyzed: 06/02/15 00:21 Lab File ID: Z8231.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isopropyl alcohol	3.16	Assign Peak	bergerb	06/02/15 01:33
Tert-amyl methyl ether	6.18	Baseline	bergerb	06/02/15 01:33

Lab Sample ID: IC 280-279871/20 Client Sample ID: _____Date Analyzed: 06/02/15 00:43 Lab File ID: Z8232.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isopropyl alcohol	3.15	Assign Peak	bergerb	06/02/15 01:30
Tert-amyl methyl ether	6.18	Peak Tail	bergerb	06/02/15 01:33

Lab Sample ID: IC 280-279871/21 Client Sample ID: _____Date Analyzed: 06/02/15 01:06 Lab File ID: Z8233.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isopropyl alcohol	3.15	Assign Peak	bergerb	06/02/15 01:32
Tert-amyl methyl ether	6.18	Baseline	bergerb	06/02/15 01:32

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Instrument ID: VMS_Z Analysis Batch Number: 279871Lab Sample ID: ICV 280-279871/23 Client Sample ID: _____Date Analyzed: 06/02/15 01:29 Lab File ID: Z8234.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	1.99	Shouldering	bergerb	06/02/15 01:52

Lab Sample ID: ICV 280-279871/24 Client Sample ID: _____Date Analyzed: 06/02/15 01:51 Lab File ID: Z8235.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isopropyl alcohol	3.15	Assign Peak	bergerb	06/02/15 02:18
Tert-amyl methyl ether	6.18	Poor chromatography	bergerb	06/02/15 02:18

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Instrument ID: VMS_Z Analysis Batch Number: 281058Lab Sample ID: CCV 280-281058/2 Client Sample ID: _____Date Analyzed: 06/09/15 17:45 Lab File ID: Z8585.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	1.97	Shouldering	bergerb	06/09/15 18:12
2-Chlorotoluene	13.68	Assign Peak	bergerb	06/09/15 18:12

Lab Sample ID: CCV 280-281058/3 Client Sample ID: _____Date Analyzed: 06/09/15 18:08 Lab File ID: Z8586.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethanol	2.84	Poor chromatography	bergerb	06/09/15 21:20
Isopropyl alcohol	3.19	Assign Peak	bergerb	06/09/15 21:20
Acetonitrile	3.33	Split Peak	bergerb	06/09/15 21:20

Lab Sample ID: LCS 280-281058/4 Client Sample ID: _____Date Analyzed: 06/09/15 19:19 Lab File ID: Z8589.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	1.98	Shouldering	bergerb	06/09/15 19:47
Acetone	3.05	Split Peak	bergerb	06/09/15 19:47
2-Chlorotoluene	13.66	Assign Peak	bergerb	06/09/15 19:47

Lab Sample ID: CCVC 280-281058/17 Client Sample ID: _____Date Analyzed: 06/09/15 23:13 Lab File ID: Z8599.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	1.98	Shouldering	bergerb	06/10/15 00:50
Hexane	4.05	Split Peak	bergerb	06/10/15 00:50
1,1-Dichloroethane	4.19	Split Peak	bergerb	06/10/15 00:50
2-Chlorotoluene	13.66	Assign Peak	bergerb	06/10/15 00:50

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Instrument ID: WC_IonChrom8 Analysis Batch Number: 280542

Lab Sample ID: 280-70279-6 DU Client Sample ID: 54400-MW55D-0615 DU

Date Analyzed: 06/05/15 11:55 Lab File ID: 15.0000.d GC Column: _____ ID: _____

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	11.35	Sample matrix interference	bensona	06/05/15 14:31

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Instrument ID: VMS_H Analysis Batch Number: 279265

Lab Sample ID: IC 280-279265/9 Client Sample ID: _____

Date Analyzed: 05/28/15 00:18 Lab File ID: H2949.D GC Column: DB-624 (75.53 ID: 0.53 (mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2,4-Trichlorobenzene	16.08	Assign Peak	moanm	06/02/15 08:03
1,2,3-Trichlorobenzene	16.53	Assign Peak	moanm	06/02/15 08:03

Lab Sample ID: IC 280-279265/10 Client Sample ID: _____

Date Analyzed: 05/28/15 00:40 Lab File ID: H2950.D GC Column: DB-624 (75.53 ID: 0.53 (mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	2.25	Baseline	wickhamt	05/28/15 06:21
1,2,4-Trichlorobenzene	16.08	Assign Peak	moanm	06/02/15 08:03
1,2,3-Trichlorobenzene	16.53	Assign Peak	moanm	06/02/15 08:03

Lab Sample ID: IC 280-279265/11 Client Sample ID: _____

Date Analyzed: 05/28/15 01:03 Lab File ID: H2951.D GC Column: DB-624 (75.53 ID: 0.53 (mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	2.25	Shouldering	wickhamt	05/28/15 06:22
1,2,4-Trichlorobenzene	16.07	Assign Peak	moanm	06/02/15 08:04
1,2,3-Trichlorobenzene	16.52	Assign Peak	moanm	06/02/15 08:04

Lab Sample ID: IC 280-279265/12 Client Sample ID: _____

Date Analyzed: 05/28/15 01:25 Lab File ID: H2952.D GC Column: DB-624 (75.53 ID: 0.53 (mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2,4-Trichlorobenzene	16.09	Assign Peak	moanm	06/02/15 08:04
1,2,3-Trichlorobenzene	16.54	Assign Peak	moanm	06/02/15 08:04

Thaneesin P.
06/17/15

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Instrument ID: VMS_H Analysis Batch Number: 279265

Lab Sample ID: IC 280-279265/13 Client Sample ID: _____

Date Analyzed: 05/28/15 01:48 Lab File ID: H2953.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2,4-Trichlorobenzene	16.07	Assign Peak	moanm	06/02/15 08:04
1,2,3-Trichlorobenzene	16.53	Assign Peak	moanm	06/02/15 08:04

Lab Sample ID: IC 280-279265/14 Client Sample ID: _____

Date Analyzed: 05/28/15 02:10 Lab File ID: H2954.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2,4-Trichlorobenzene	16.09	Assign Peak	moanm	06/02/15 08:04
1,2,3-Trichlorobenzene	16.54	Assign Peak	moanm	06/02/15 08:04

Lab Sample ID: IC 280-279265/15 Client Sample ID: _____

Date Analyzed: 05/28/15 02:33 Lab File ID: H2955.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2,4-Trichlorobenzene	16.08	Assign Peak	moanm	06/02/15 08:05
1,2,3-Trichlorobenzene	16.53	Assign Peak	moanm	06/02/15 08:05

Lab Sample ID: ICV 280-279265/22 Client Sample ID: _____

Date Analyzed: 05/28/15 02:55 Lab File ID: H2956.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2,4-Trichlorobenzene	16.09	Assign Peak	moanm	06/02/15 08:07
1,2,3-Trichlorobenzene	16.54	Assign Peak	moanm	06/02/15 08:07

Thaneesin P.
06/17/15

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Instrument ID: VMS_H Analysis Batch Number: 279265

Lab Sample ID: IC 280-279265/16 Client Sample ID: _____

Date Analyzed: 05/28/15 03:18 Lab File ID: H2957.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetonitrile	3.80	Split Peak	wickhamt	05/28/15 06:50

Lab Sample ID: IC 280-279265/17 Client Sample ID: _____

Date Analyzed: 05/28/15 03:40 Lab File ID: H2958.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethanol	3.17	Shouldering	wickhamt	05/28/15 06:52
Acetonitrile	3.85	Split Peak	wickhamt	05/28/15 06:50

Lab Sample ID: IC 280-279265/18 Client Sample ID: _____

Date Analyzed: 05/28/15 04:03 Lab File ID: H2959.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethanol	3.19	Shouldering	wickhamt	05/28/15 06:52

Lab Sample ID: IC 280-279265/20 Client Sample ID: _____

Date Analyzed: 05/28/15 04:48 Lab File ID: H2961.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isopropyl alcohol	3.63	Assign Peak	wickhamt	05/28/15 06:49

Thaveesin P.
06/17/15

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Instrument ID: VMS_H Analysis Batch Number: 281475

Lab Sample ID: CCV 280-281475/2 Client Sample ID: _____

Date Analyzed: 06/11/15 19:03 Lab File ID: H3590.D GC Column: DB-624 (75.53 ID: 0.53 (mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	2.27	Poor chromatography	bergerb	06/11/15 19:32
trans-1,3-Dichloropropene	9.29	Split Peak	bergerb	06/11/15 19:32

Thameesin P.
06/17/15

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Instrument ID: VMS_Z Analysis Batch Number: 279871Lab Sample ID: IC 280-279871/9 Client Sample ID: _____Date Analyzed: 06/01/15 19:51 Lab File ID: Z8220.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dichloroethane	5.99	Assign Peak	bergerb	06/01/15 22:53

Lab Sample ID: IC 280-279871/11 Client Sample ID: _____Date Analyzed: 06/01/15 20:36 Lab File ID: Z8222.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	2.00	Shouldering	bergerb	06/01/15 23:38
tert-Butyl alcohol	3.58	Split Peak	bergerb	06/02/15 00:01
2-Chlorotoluene	13.66	Assign Peak	bergerb	06/01/15 23:38

Lab Sample ID: IC 280-279871/12 Client Sample ID: _____Date Analyzed: 06/01/15 20:59 Lab File ID: Z8223.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	1.99	Shouldering	bergerb	06/01/15 23:37
tert-Butyl alcohol	3.57	Poor chromatography	bergerb	06/01/15 23:37
2-Chlorotoluene	13.67	Assign Peak	bergerb	06/01/15 23:37

Lab Sample ID: IC 280-279871/13 Client Sample ID: _____Date Analyzed: 06/01/15 21:22 Lab File ID: Z8224.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	1.99	Shouldering	bergerb	06/01/15 22:51
tert-Butyl alcohol	3.57	Poor chromatography	bergerb	06/01/15 22:51
2-Chlorotoluene	13.67	Assign Peak	bergerb	06/01/15 22:51

Thaweesin P.

06/11/15

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Instrument ID: VMS_Z Analysis Batch Number: 279871

Lab Sample ID: IC 280-279871/14 Client Sample ID: _____

Date Analyzed: 06/01/15 21:45 Lab File ID: Z8225.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	2.00	Shouldering	bergerb	06/01/15 23:35
tert-Butyl alcohol	3.57	Poor chromatography	bergerb	06/01/15 23:35
2-Chlorotoluene	13.66	Assign Peak	bergerb	06/01/15 23:35

Lab Sample ID: IC 280-279871/15 Client Sample ID: _____

Date Analyzed: 06/01/15 22:07 Lab File ID: Z8226.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	2.02	Shouldering	bergerb	06/01/15 23:33
tert-Butyl alcohol	3.59	Poor chromatography	bergerb	06/01/15 23:33
2-Chlorotoluene	13.67	Assign Peak	bergerb	06/01/15 23:33

Lab Sample ID: ICV 280-279871/22 Client Sample ID: _____

Date Analyzed: 06/01/15 22:30 Lab File ID: Z8227.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Chlorotoluene	13.65	Assign Peak	bergerb	06/02/15 01:53

Lab Sample ID: IC 280-279871/17 Client Sample ID: _____

Date Analyzed: 06/01/15 23:35 Lab File ID: Z8229.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isopropyl alcohol	3.17	Split Peak	bergerb	06/02/15 01:59
Tert-amyl methyl ether	6.18	Poor chromatography	bergerb	06/02/15 02:04
n-Butanol	6.83	Split Peak	bergerb	06/02/15 02:04

Thaweasin P.

06/11/15

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Instrument ID: VMS_Z Analysis Batch Number: 279871

Lab Sample ID: IC 280-279871/18 Client Sample ID: _____

Date Analyzed: 06/01/15 23:58 Lab File ID: Z8230.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isopropyl alcohol	3.15	Assign Peak	bergerb	06/02/15 02:06
Tert-amyl methyl ether	6.18	Poor chromatography	bergerb	06/02/15 02:06

Lab Sample ID: ICIS 280-279871/19 Client Sample ID: _____

Date Analyzed: 06/02/15 00:21 Lab File ID: Z8231.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isopropyl alcohol	3.16	Assign Peak	bergerb	06/02/15 01:33
Tert-amyl methyl ether	6.18	Baseline	bergerb	06/02/15 01:33

Lab Sample ID: IC 280-279871/20 Client Sample ID: _____

Date Analyzed: 06/02/15 00:43 Lab File ID: Z8232.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isopropyl alcohol	3.15	Assign Peak	bergerb	06/02/15 01:30
Tert-amyl methyl ether	6.18	Peak Tail	bergerb	06/02/15 01:33

Lab Sample ID: IC 280-279871/21 Client Sample ID: _____

Date Analyzed: 06/02/15 01:06 Lab File ID: Z8233.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isopropyl alcohol	3.15	Assign Peak	bergerb	06/02/15 01:32
Tert-amyl methyl ether	6.18	Baseline	bergerb	06/02/15 01:32

Thaneesin P.
06/11/15

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Instrument ID: VMS_Z Analysis Batch Number: 279871

Lab Sample ID: ICV 280-279871/23 Client Sample ID: _____

Date Analyzed: 06/02/15 01:29 Lab File ID: Z8234.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	1.99	Shouldering	bergerb	06/02/15 01:52

Lab Sample ID: ICV 280-279871/24 Client Sample ID: _____

Date Analyzed: 06/02/15 01:51 Lab File ID: Z8235.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isopropyl alcohol	3.15	Assign Peak	bergerb	06/02/15 02:18
Tert-amyl methyl ether	6.18	Poor chromatography	bergerb	06/02/15 02:18

Thaneesin P.
06/11/15

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Instrument ID: VMS_Z Analysis Batch Number: 281058

Lab Sample ID: CCV 280-281058/2 Client Sample ID: _____

Date Analyzed: 06/09/15 17:45 Lab File ID: Z8585.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	1.97	Shouldering	bergerb	06/09/15 18:12
2-Chlorotoluene	13.68	Assign Peak	bergerb	06/09/15 18:12

Lab Sample ID: CCV 280-281058/3 Client Sample ID: _____

Date Analyzed: 06/09/15 18:08 Lab File ID: Z8586.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethanol	2.84	Poor chromatography	bergerb	06/09/15 21:20
Isopropyl alcohol	3.19	Assign Peak	bergerb	06/09/15 21:20
Acetonitrile	3.33	Split Peak	bergerb	06/09/15 21:20

Lab Sample ID: LCS 280-281058/4 Client Sample ID: _____

Date Analyzed: 06/09/15 19:19 Lab File ID: Z8589.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	1.98	Shouldering	bergerb	06/09/15 19:47
Acetone	3.05	Split Peak	bergerb	06/09/15 19:47
2-Chlorotoluene	13.66	Assign Peak	bergerb	06/09/15 19:47

Lab Sample ID: CCVC 280-281058/17 Client Sample ID: _____

Date Analyzed: 06/09/15 23:13 Lab File ID: Z8599.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	1.98	Shouldering	bergerb	06/10/15 00:50
Hexane	4.05	Split Peak	bergerb	06/10/15 00:50
1,1-Dichloroethane	4.19	Split Peak	bergerb	06/10/15 00:50
2-Chlorotoluene	13.66	Assign Peak	bergerb	06/10/15 00:50

8260B

Thaneesin P.
06/11/15

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Instrument ID: WC_IonChrom8 Analysis Batch Number: 280542

Lab Sample ID: 280-70279-6 DU Client Sample ID: 54400-MW55D-0615 DU

Date Analyzed: 06/05/15 11:55 Lab File ID: 15.0000.d GC Column: _____ ID: _____

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	11.35	Sample matrix interference	bensona	06/05/15 14:31

Thaneesin P.
06/11/15

SAMPLE SUMMARY

Client: GSI Environmental, Inc

Job Number: 280-70279-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-70279-1TB	54403-TB19-0615	Water	06/04/2015 0900	06/05/2015 0700
280-70279-2EB	54402-EB18-0615	Water	06/04/2015 0925	06/05/2015 0700
280-70279-3	54400-MW43-0615	Water	06/04/2015 0915	06/05/2015 0700
280-70279-4	54400-MW56-0615	Water	06/04/2015 1155	06/05/2015 0700
280-70279-5	54400-MW55S-0615	Water	06/04/2015 1405	06/05/2015 0700
280-70279-6	54400-MW55D-0615	Water	06/04/2015 1510	06/05/2015 0700

EXECUTIVE SUMMARY - Detections

Client: GSI Environmental, Inc

Job Number: 280-70279-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
280-70279-2EB Acetone	54402-EB18-0615	6.6	J	10	ug/L	8260B
280-70279-3 1,2-Dichloropropane	54400-MW43-0615	0.21	J	1.0	ug/L	8260B
Carbon tetrachloride		0.62	J	2.0	ug/L	8260B
Chloroform		1.5		1.0	ug/L	8260B
Methylene Chloride		1.4	J	5.0	ug/L	8260B
Trichloroethene		0.23	J	1.0	ug/L	8260B
280-70279-5 1,1-Dichloroethene	54400-MW55S-0615	7.4		1.0	ug/L	8260B
Carbon tetrachloride		0.70	J	2.0	ug/L	8260B
Chloroform		0.26	J	1.0	ug/L	8260B
Trichloroethene		3.5		1.0	ug/L	8260B
280-70279-6 1,1-Dichloroethene	54400-MW55D-0615	16		1.0	ug/L	8260B
Carbon tetrachloride		3.2		2.0	ug/L	8260B
Chloroform		0.32	J	1.0	ug/L	8260B
Trichloroethene		7.2		1.0	ug/L	8260B
Calcium		97000	J	1000	ug/L	6010C
Iron		38	J	100	ug/L	6010C
Magnesium		19000		500	ug/L	6010C
Potassium		1400	J	3000	ug/L	6010C
Sodium		47000		5000	ug/L	6010C
Nitrate as N		1.1		0.50	mg/L	9056
Chloride		20		3.0	mg/L	9056A
Sulfate		26		5.0	mg/L	9056A
Alkalinity		350		5.0	mg/L	SM 2320B
Bicarbonate Alkalinity as CaCO3		350		5.0	mg/L	SM 2320B
Total Dissolved Solids (TDS)		460		10	mg/L	SM 2540C

METHOD SUMMARY

Client: GSI Environmental, Inc

Job Number: 280-70279-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds (GC/MS)	TAL DEN	SW846 8260B	
Purge and Trap	TAL DEN		SW846 5030B
Metals (ICP)	TAL DEN	SW846 6010C	
Preparation, Total Recoverable or Dissolved Metals	TAL DEN		SW846 3005A
Sample Filtration, Field			FIELD_FLTRD
Metals (ICP)	TAL DEN	SW846 6010C	
Preparation, Total Metals	TAL DEN		SW846 3010A
Chromium, Hexavalent	TAL DEN	SW846 7196A	
Anions, Ion Chromatography	TAL DEN	SW846 9056	
Anions, Ion Chromatography	TAL DEN	SW846 9056A	
Alkalinity	TAL DEN	SM SM 2320B	
Solids, Total Dissolved (TDS)	TAL DEN	SM SM 2540C	

Lab References:

TAL DEN = TestAmerica Denver

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: GSI Environmental, Inc

Job Number: 280-70279-1

Method	Analyst	Analyst ID
SW846 8260B	Berger, Brent B	BBB
SW846 6010C	Broander, Laura L	LLB
SW846 6010C	Scott, Samantha J	SJS
SW846 7196A	Jewell, Connie C	CCJ
SW846 9056	Phan, Thu L	TLP
SW846 9056A	Phan, Thu L	TLP
SM SM 2320B	Jewell, Connie C	CCJ
SM SM 2540C	Cherry, Scott V	SVC

Analytical Data

Client: GSI Environmental, Inc

Job Number: 280-70279-1

Client Sample ID: 54403-TB19-0615

Lab Sample ID: 280-70279-1TB

Date Sampled: 06/04/2015 0900

Client Matrix: Water

Date Received: 06/05/2015 0700

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 280-281475	Instrument ID: VMS_H
Prep Method: 5030B	Prep Batch: N/A	Lab File ID: H3618.D
Dilution: 1.0		Initial Weight/Volume: 20 mL
Analysis Date: 06/12/2015 0545		Final Weight/Volume: 20 mL
Prep Date: 06/12/2015 0545		

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.80	U	0.17	1.0
1,1,1-Trichloroethane	0.40	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.80	U	0.20	1.0
1,1,2-Trichloroethane	0.80	U	0.32	1.0
1,1-Dichloroethane	0.80	U	0.16	1.0
1,1-Dichloroethene	0.80	U	0.14	1.0
1,1-Dichloropropene	0.40	U	0.15	1.0
1,2,3-Trichlorobenzene	0.80	U	0.18	1.0
1,2,3-Trichloropropane	0.80	U	0.77	3.0
1,2,4-Trichlorobenzene	0.80	U	0.32	1.0
1,2,4-Trimethylbenzene	0.40	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	1.6	U	0.81	5.0
1,2-Dibromoethane	0.40	U	0.18	1.0
1,2-Dichlorobenzene	0.40	U	0.13	1.0
1,2-Dichloroethane	0.40	U	0.13	1.0
1,2-Dichloropropane	0.40	U	0.13	1.0
1,3,5-Trimethylbenzene	0.40	U	0.14	1.0
1,3-Dichlorobenzene	0.40	U	0.16	1.0
1,3-Dichloropropane	0.80	U	0.15	1.0
1,4-Dichlorobenzene	0.40	U	0.16	1.0
2,2-Dichloropropane	0.40	U	0.20	1.0
2-Butanone (MEK)	4.0	U	1.8	6.0
2-Chlorotoluene	0.40	U	0.17	1.0
2-Hexanone	4.0	U	1.4	5.0
4-Chlorotoluene	0.80	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	3.2	U	1.0	5.0
Acetone	6.4	U	1.9	10
Benzene	0.40	U	0.16	1.0
Bromobenzene	0.40	U	0.17	1.0
Bromochloromethane	0.20	U	0.10	1.0
Bromodichloromethane	0.40	U	0.17	1.0
Bromoform	0.40	U	0.19	1.0
Bromomethane	0.80	U	0.21	2.0
Carbon disulfide	1.6	U	0.45	2.0
Carbon tetrachloride	0.40	U	0.19	2.0
Chlorobenzene	0.40	U	0.17	1.0
Chlorodibromomethane	0.40	U	0.17	1.0
Chloroethane	1.6	U	0.41	2.0
Chloroform	0.40	U	0.16	1.0
Chloromethane	0.80	U	0.30	2.0
cis-1,2-Dichloroethene	0.40	U	0.15	1.0
cis-1,3-Dichloropropene	0.40	U	0.16	1.0
Dibromomethane	0.40	U	0.17	1.0
Dichlorodifluoromethane	0.80	U	0.31	2.0
Ethylbenzene	0.40	U	0.16	1.0

Analytical Data

Client: GSI Environmental, Inc

Job Number: 280-70279-1

Client Sample ID: 54403-TB19-0615

Lab Sample ID: 280-70279-1TB
 Client Matrix: Water

Date Sampled: 06/04/2015 0900
 Date Received: 06/05/2015 0700

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 280-281475	Instrument ID: VMS_H
Prep Method: 5030B	Prep Batch: N/A	Lab File ID: H3618.D
Dilution: 1.0		Initial Weight/Volume: 20 mL
Analysis Date: 06/12/2015 0545		Final Weight/Volume: 20 mL
Prep Date: 06/12/2015 0545		

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Hexachlorobutadiene	0.80	U	0.36	1.0
Isopropylbenzene	0.40	U	0.19	1.0
Methyl tert-butyl ether	0.80	U	0.25	5.0
Methylene Chloride	0.80	U	0.32	5.0
m-Xylene & p-Xylene	0.80	U	0.34	2.0
Naphthalene	0.80	U	0.22	1.0
n-Butylbenzene	0.80	U	0.32	1.0
N-Propylbenzene	0.40	U	0.16	1.0
o-Xylene	0.40	U	0.19	1.0
p-Isopropyltoluene	0.40	U	0.17	1.0
sec-Butylbenzene	0.40	U	0.17	1.0
Styrene	0.40	U	0.17	1.0
tert-Butyl alcohol	32	U	11	50
tert-Butylbenzene	0.40	U	0.16	1.0
Tetrachloroethene	0.40	U	0.20	1.0
Toluene	0.40	U	0.17	1.0
trans-1,2-Dichloroethene	0.40	U	0.15	1.0
trans-1,3-Dichloropropene	0.40	U	0.19	1.0
Trichloroethene	0.40	U	0.16	1.0
Trichlorofluoromethane	0.80	U	0.29	2.0
Vinyl chloride	0.20	U	0.10	1.5

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	105		81 - 118
4-Bromofluorobenzene (Surr)	101		85 - 114
Dibromofluoromethane (Surr)	111		80 - 119
Toluene-d8 (Surr)	99		89 - 112

Analytical Data

Client: GSI Environmental, Inc

Job Number: 280-70279-1

Client Sample ID: 54402-EB18-0615

Lab Sample ID: 280-70279-2EB

Date Sampled: 06/04/2015 0925

Client Matrix: Water

Date Received: 06/05/2015 0700

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 280-281058	Instrument ID: VMS_Z
Prep Method: 5030B	Prep Batch: N/A	Lab File ID: Z8594.D
Dilution: 1.0		Initial Weight/Volume: 20 mL
Analysis Date: 06/09/2015 2119		Final Weight/Volume: 20 mL
Prep Date: 06/09/2015 2119		

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.80	U	0.17	1.0
1,1,1-Trichloroethane	0.40	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.80	U	0.20	1.0
1,1,2-Trichloroethane	0.80	U	0.32	1.0
1,1-Dichloroethane	0.80	U	0.16	1.0
1,1-Dichloroethene	0.80	U	0.14	1.0
1,1-Dichloropropene	0.40	U	0.15	1.0
1,2,3-Trichlorobenzene	0.80	U	0.18	1.0
1,2,3-Trichloropropane	0.80	U	0.77	3.0
1,2,4-Trichlorobenzene	0.80	U	0.32	1.0
1,2,4-Trimethylbenzene	0.40	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	1.6	U	0.81	5.0
1,2-Dibromoethane	0.40	U	0.18	1.0
1,2-Dichlorobenzene	0.40	U	0.13	1.0
1,2-Dichloroethane	0.40	U	0.13	1.0
1,2-Dichloropropane	0.40	U	0.13	1.0
1,3,5-Trimethylbenzene	0.40	U	0.14	1.0
1,3-Dichlorobenzene	0.40	U	0.16	1.0
1,3-Dichloropropane	0.80	U	0.15	1.0
1,4-Dichlorobenzene	0.40	U	0.16	1.0
2,2-Dichloropropane	0.40	U	0.20	1.0
2-Butanone (MEK)	4.0	U	1.8	6.0
2-Chlorotoluene	0.40	U	0.17	1.0
2-Hexanone	4.0	U	1.4	5.0
4-Chlorotoluene	0.80	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	3.2	U	1.0	5.0
Acetone	6.6	J	1.9	10
Benzene	0.40	U	0.16	1.0
Bromobenzene	0.40	U	0.17	1.0
Bromochloromethane	0.20	U	0.10	1.0
Bromodichloromethane	0.40	U	0.17	1.0
Bromoform	0.40	U	0.19	1.0
Bromomethane	0.80	U	0.21	2.0
Carbon disulfide	1.6	U	0.45	2.0
Carbon tetrachloride	0.40	U	0.19	2.0
Chlorobenzene	0.40	U	0.17	1.0
Chlorodibromomethane	0.40	U	0.17	1.0
Chloroethane	1.6	U	0.41	2.0
Chloroform	0.40	U	0.16	1.0
Chloromethane	0.80	U	0.30	2.0
cis-1,2-Dichloroethene	0.40	U	0.15	1.0
cis-1,3-Dichloropropene	0.40	U	0.16	1.0
Dibromomethane	0.40	U	0.17	1.0
Dichlorodifluoromethane	0.80	U	0.31	2.0
Ethylbenzene	0.40	U	0.16	1.0

Analytical Data

Client: GSI Environmental, Inc

Job Number: 280-70279-1

Client Sample ID: 54402-EB18-0615

Lab Sample ID: 280-70279-2EB
 Client Matrix: Water

Date Sampled: 06/04/2015 0925
 Date Received: 06/05/2015 0700

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 280-281058	Instrument ID: VMS_Z
Prep Method: 5030B	Prep Batch: N/A	Lab File ID: Z8594.D
Dilution: 1.0		Initial Weight/Volume: 20 mL
Analysis Date: 06/09/2015 2119		Final Weight/Volume: 20 mL
Prep Date: 06/09/2015 2119		

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Hexachlorobutadiene	0.80	U	0.36	1.0
Isopropylbenzene	0.40	U	0.19	1.0
Methyl tert-butyl ether	0.80	U	0.25	5.0
Methylene Chloride	0.80	U	0.32	5.0
m-Xylene & p-Xylene	0.80	U	0.34	2.0
Naphthalene	0.80	U	0.22	1.0
n-Butylbenzene	0.80	U	0.32	1.0
N-Propylbenzene	0.40	U	0.16	1.0
o-Xylene	0.40	U	0.19	1.0
p-Isopropyltoluene	0.40	U	0.17	1.0
sec-Butylbenzene	0.40	U	0.17	1.0
Styrene	0.40	U	0.17	1.0
tert-Butyl alcohol	32	U	11	50
tert-Butylbenzene	0.40	U	0.16	1.0
Tetrachloroethene	0.40	U	0.20	1.0
Toluene	0.40	U	0.17	1.0
trans-1,2-Dichloroethene	0.40	U	0.15	1.0
trans-1,3-Dichloropropene	0.40	U	0.19	1.0
Trichloroethene	0.40	U	0.16	1.0
Trichlorofluoromethane	0.80	U	0.29	2.0
Vinyl chloride	0.20	U	0.10	1.5

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	97		81 - 118
4-Bromofluorobenzene (Surr)	105		85 - 114
Dibromofluoromethane (Surr)	108		80 - 119
Toluene-d8 (Surr)	102		89 - 112

Analytical Data

Client: GSI Environmental, Inc

Job Number: 280-70279-1

Client Sample ID: 54400-MW43-0615

Lab Sample ID: 280-70279-3

Date Sampled: 06/04/2015 0915

Client Matrix: Water

Date Received: 06/05/2015 0700

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 280-281058	Instrument ID: VMS_Z
Prep Method: 5030B	Prep Batch: N/A	Lab File ID: Z8595.D
Dilution: 1.0		Initial Weight/Volume: 20 mL
Analysis Date: 06/09/2015 2142		Final Weight/Volume: 20 mL
Prep Date: 06/09/2015 2142		

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.80	U	0.17	1.0
1,1,1-Trichloroethane	0.40	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.80	U	0.20	1.0
1,1,2-Trichloroethane	0.80	U	0.32	1.0
1,1-Dichloroethane	0.80	U	0.16	1.0
1,1-Dichloroethene	0.80	U	0.14	1.0
1,1-Dichloropropene	0.40	U	0.15	1.0
1,2,3-Trichlorobenzene	0.80	U	0.18	1.0
1,2,3-Trichloropropane	0.80	U	0.77	3.0
1,2,4-Trichlorobenzene	0.80	U	0.32	1.0
1,2,4-Trimethylbenzene	0.40	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	1.6	U	0.81	5.0
1,2-Dibromoethane	0.40	U	0.18	1.0
1,2-Dichlorobenzene	0.40	U	0.13	1.0
1,2-Dichloroethane	0.40	U	0.13	1.0
1,2-Dichloropropane	0.21	J	0.13	1.0
1,3,5-Trimethylbenzene	0.40	U	0.14	1.0
1,3-Dichlorobenzene	0.40	U	0.16	1.0
1,3-Dichloropropane	0.80	U	0.15	1.0
1,4-Dichlorobenzene	0.40	U	0.16	1.0
2,2-Dichloropropane	0.40	U	0.20	1.0
2-Butanone (MEK)	4.0	U	1.8	6.0
2-Chlorotoluene	0.40	U	0.17	1.0
2-Hexanone	4.0	U	1.4	5.0
4-Chlorotoluene	0.80	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	3.2	U	1.0	5.0
Acetone	6.4	U	1.9	10
Benzene	0.40	U	0.16	1.0
Bromobenzene	0.40	U	0.17	1.0
Bromochloromethane	0.20	U	0.10	1.0
Bromodichloromethane	0.40	U	0.17	1.0
Bromoform	0.40	U	0.19	1.0
Bromomethane	0.80	U	0.21	2.0
Carbon disulfide	1.6	U	0.45	2.0
Carbon tetrachloride	0.62	J	0.19	2.0
Chlorobenzene	0.40	U	0.17	1.0
Chlorodibromomethane	0.40	U	0.17	1.0
Chloroethane	1.6	U	0.41	2.0
Chloroform	1.5		0.16	1.0
Chloromethane	0.80	U	0.30	2.0
cis-1,2-Dichloroethene	0.40	U	0.15	1.0
cis-1,3-Dichloropropene	0.40	U	0.16	1.0
Dibromomethane	0.40	U	0.17	1.0
Dichlorodifluoromethane	0.80	U	0.31	2.0
Ethylbenzene	0.40	U	0.16	1.0

Analytical Data

Client: GSI Environmental, Inc

Job Number: 280-70279-1

Client Sample ID: 54400-MW43-0615

Lab Sample ID: 280-70279-3

Date Sampled: 06/04/2015 0915

Client Matrix: Water

Date Received: 06/05/2015 0700

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 280-281058	Instrument ID: VMS_Z
Prep Method: 5030B	Prep Batch: N/A	Lab File ID: Z8595.D
Dilution: 1.0		Initial Weight/Volume: 20 mL
Analysis Date: 06/09/2015 2142		Final Weight/Volume: 20 mL
Prep Date: 06/09/2015 2142		

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Hexachlorobutadiene	0.80	U	0.36	1.0
Isopropylbenzene	0.40	U	0.19	1.0
Methyl tert-butyl ether	0.80	U	0.25	5.0
Methylene Chloride	1.4	J	0.32	5.0
m-Xylene & p-Xylene	0.80	U	0.34	2.0
Naphthalene	0.80	U	0.22	1.0
n-Butylbenzene	0.80	U	0.32	1.0
N-Propylbenzene	0.40	U	0.16	1.0
o-Xylene	0.40	U	0.19	1.0
p-Isopropyltoluene	0.40	U	0.17	1.0
sec-Butylbenzene	0.40	U	0.17	1.0
Styrene	0.40	U	0.17	1.0
tert-Butyl alcohol	32	U	11	50
tert-Butylbenzene	0.40	U	0.16	1.0
Tetrachloroethene	0.40	U	0.20	1.0
Toluene	0.40	U	0.17	1.0
trans-1,2-Dichloroethene	0.40	U	0.15	1.0
trans-1,3-Dichloropropene	0.40	U	0.19	1.0
Trichloroethene	0.23	J	0.16	1.0
Trichlorofluoromethane	0.80	U	0.29	2.0
Vinyl chloride	0.20	U	0.10	1.5

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100		81 - 118
4-Bromofluorobenzene (Surr)	107		85 - 114
Dibromofluoromethane (Surr)	108		80 - 119
Toluene-d8 (Surr)	104		89 - 112

Analytical Data

Client: GSI Environmental, Inc

Job Number: 280-70279-1

Client Sample ID: 54400-MW56-0615

Lab Sample ID: 280-70279-4

Date Sampled: 06/04/2015 1155

Client Matrix: Water

Date Received: 06/05/2015 0700

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 280-281058	Instrument ID: VMS_Z
Prep Method: 5030B	Prep Batch: N/A	Lab File ID: Z8596.D
Dilution: 1.0		Initial Weight/Volume: 20 mL
Analysis Date: 06/09/2015 2205		Final Weight/Volume: 20 mL
Prep Date: 06/09/2015 2205		

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.80	U	0.17	1.0
1,1,1-Trichloroethane	0.40	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.80	U	0.20	1.0
1,1,2-Trichloroethane	0.80	U	0.32	1.0
1,1-Dichloroethane	0.80	U	0.16	1.0
1,1-Dichloroethene	0.80	U	0.14	1.0
1,1-Dichloropropene	0.40	U	0.15	1.0
1,2,3-Trichlorobenzene	0.80	U	0.18	1.0
1,2,3-Trichloropropane	0.80	U	0.77	3.0
1,2,4-Trichlorobenzene	0.80	U	0.32	1.0
1,2,4-Trimethylbenzene	0.40	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	1.6	U	0.81	5.0
1,2-Dibromoethane	0.40	U	0.18	1.0
1,2-Dichlorobenzene	0.40	U	0.13	1.0
1,2-Dichloroethane	0.40	U	0.13	1.0
1,2-Dichloropropane	0.40	U	0.13	1.0
1,3,5-Trimethylbenzene	0.40	U	0.14	1.0
1,3-Dichlorobenzene	0.40	U	0.16	1.0
1,3-Dichloropropane	0.80	U	0.15	1.0
1,4-Dichlorobenzene	0.40	U	0.16	1.0
2,2-Dichloropropane	0.40	U	0.20	1.0
2-Butanone (MEK)	4.0	U	1.8	6.0
2-Chlorotoluene	0.40	U	0.17	1.0
2-Hexanone	4.0	U	1.4	5.0
4-Chlorotoluene	0.80	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	3.2	U	1.0	5.0
Acetone	6.4	U	1.9	10
Benzene	0.40	U	0.16	1.0
Bromobenzene	0.40	U	0.17	1.0
Bromochloromethane	0.20	U	0.10	1.0
Bromodichloromethane	0.40	U	0.17	1.0
Bromoform	0.40	U	0.19	1.0
Bromomethane	0.80	U	0.21	2.0
Carbon disulfide	1.6	U	0.45	2.0
Carbon tetrachloride	0.40	U	0.19	2.0
Chlorobenzene	0.40	U	0.17	1.0
Chlorodibromomethane	0.40	U	0.17	1.0
Chloroethane	1.6	U	0.41	2.0
Chloroform	0.40	U	0.16	1.0
Chloromethane	0.80	U	0.30	2.0
cis-1,2-Dichloroethene	0.40	U	0.15	1.0
cis-1,3-Dichloropropene	0.40	U	0.16	1.0
Dibromomethane	0.40	U	0.17	1.0
Dichlorodifluoromethane	0.80	U	0.31	2.0
Ethylbenzene	0.40	U	0.16	1.0

Analytical Data

Client: GSI Environmental, Inc

Job Number: 280-70279-1

Client Sample ID: 54400-MW56-0615

Lab Sample ID: 280-70279-4

Date Sampled: 06/04/2015 1155

Client Matrix: Water

Date Received: 06/05/2015 0700

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 280-281058	Instrument ID: VMS_Z
Prep Method: 5030B	Prep Batch: N/A	Lab File ID: Z8596.D
Dilution: 1.0		Initial Weight/Volume: 20 mL
Analysis Date: 06/09/2015 2205		Final Weight/Volume: 20 mL
Prep Date: 06/09/2015 2205		

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Hexachlorobutadiene	0.80	U	0.36	1.0
Isopropylbenzene	0.40	U	0.19	1.0
Methyl tert-butyl ether	0.80	U	0.25	5.0
Methylene Chloride	0.80	U	0.32	5.0
m-Xylene & p-Xylene	0.80	U	0.34	2.0
Naphthalene	0.80	U	0.22	1.0
n-Butylbenzene	0.80	U	0.32	1.0
N-Propylbenzene	0.40	U	0.16	1.0
o-Xylene	0.40	U	0.19	1.0
p-Isopropyltoluene	0.40	U	0.17	1.0
sec-Butylbenzene	0.40	U	0.17	1.0
Styrene	0.40	U	0.17	1.0
tert-Butyl alcohol	32	U	11	50
tert-Butylbenzene	0.40	U	0.16	1.0
Tetrachloroethene	0.40	U	0.20	1.0
Toluene	0.40	U	0.17	1.0
trans-1,2-Dichloroethene	0.40	U	0.15	1.0
trans-1,3-Dichloropropene	0.40	U	0.19	1.0
Trichloroethene	0.40	U	0.16	1.0
Trichlorofluoromethane	0.80	U	0.29	2.0
Vinyl chloride	0.20	U	0.10	1.5

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99		81 - 118
4-Bromofluorobenzene (Surr)	105		85 - 114
Dibromofluoromethane (Surr)	109		80 - 119
Toluene-d8 (Surr)	102		89 - 112

Analytical Data

Client: GSI Environmental, Inc

Job Number: 280-70279-1

Client Sample ID: 54400-MW55S-0615

Lab Sample ID: 280-70279-5

Date Sampled: 06/04/2015 1405

Client Matrix: Water

Date Received: 06/05/2015 0700

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 280-281058	Instrument ID: VMS_Z
Prep Method: 5030B	Prep Batch: N/A	Lab File ID: Z8597.D
Dilution: 1.0		Initial Weight/Volume: 20 mL
Analysis Date: 06/09/2015 2227		Final Weight/Volume: 20 mL
Prep Date: 06/09/2015 2227		

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.80	U	0.17	1.0
1,1,1-Trichloroethane	0.40	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.80	U	0.20	1.0
1,1,2-Trichloroethane	0.80	U	0.32	1.0
1,1-Dichloroethane	0.80	U	0.16	1.0
1,1-Dichloroethene	7.4		0.14	1.0
1,1-Dichloropropene	0.40	U	0.15	1.0
1,2,3-Trichlorobenzene	0.80	U	0.18	1.0
1,2,3-Trichloropropane	0.80	U	0.77	3.0
1,2,4-Trichlorobenzene	0.80	U	0.32	1.0
1,2,4-Trimethylbenzene	0.40	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	1.6	U	0.81	5.0
1,2-Dibromoethane	0.40	U	0.18	1.0
1,2-Dichlorobenzene	0.40	U	0.13	1.0
1,2-Dichloroethane	0.40	U	0.13	1.0
1,2-Dichloropropane	0.40	U	0.13	1.0
1,3,5-Trimethylbenzene	0.40	U	0.14	1.0
1,3-Dichlorobenzene	0.40	U	0.16	1.0
1,3-Dichloropropane	0.80	U	0.15	1.0
1,4-Dichlorobenzene	0.40	U	0.16	1.0
2,2-Dichloropropane	0.40	U	0.20	1.0
2-Butanone (MEK)	4.0	U	1.8	6.0
2-Chlorotoluene	0.40	U	0.17	1.0
2-Hexanone	4.0	U	1.4	5.0
4-Chlorotoluene	0.80	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	3.2	U	1.0	5.0
Acetone	6.4	U	1.9	10
Benzene	0.40	U	0.16	1.0
Bromobenzene	0.40	U	0.17	1.0
Bromochloromethane	0.20	U	0.10	1.0
Bromodichloromethane	0.40	U	0.17	1.0
Bromoform	0.40	U	0.19	1.0
Bromomethane	0.80	U	0.21	2.0
Carbon disulfide	1.6	U	0.45	2.0
Carbon tetrachloride	0.70	J	0.19	2.0
Chlorobenzene	0.40	U	0.17	1.0
Chlorodibromomethane	0.40	U	0.17	1.0
Chloroethane	1.6	U	0.41	2.0
Chloroform	0.26	J	0.16	1.0
Chloromethane	0.80	U	0.30	2.0
cis-1,2-Dichloroethene	0.40	U	0.15	1.0
cis-1,3-Dichloropropene	0.40	U	0.16	1.0
Dibromomethane	0.40	U	0.17	1.0
Dichlorodifluoromethane	0.80	U	0.31	2.0
Ethylbenzene	0.40	U	0.16	1.0

Analytical Data

Client: GSI Environmental, Inc

Job Number: 280-70279-1

Client Sample ID: 54400-MW55S-0615

Lab Sample ID: 280-70279-5

Date Sampled: 06/04/2015 1405

Client Matrix: Water

Date Received: 06/05/2015 0700

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 280-281058	Instrument ID: VMS_Z
Prep Method: 5030B	Prep Batch: N/A	Lab File ID: Z8597.D
Dilution: 1.0		Initial Weight/Volume: 20 mL
Analysis Date: 06/09/2015 2227		Final Weight/Volume: 20 mL
Prep Date: 06/09/2015 2227		

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Hexachlorobutadiene	0.80	U	0.36	1.0
Isopropylbenzene	0.40	U	0.19	1.0
Methyl tert-butyl ether	0.80	U	0.25	5.0
Methylene Chloride	0.80	U	0.32	5.0
m-Xylene & p-Xylene	0.80	U	0.34	2.0
Naphthalene	0.80	U	0.22	1.0
n-Butylbenzene	0.80	U	0.32	1.0
N-Propylbenzene	0.40	U	0.16	1.0
o-Xylene	0.40	U	0.19	1.0
p-Isopropyltoluene	0.40	U	0.17	1.0
sec-Butylbenzene	0.40	U	0.17	1.0
Styrene	0.40	U	0.17	1.0
tert-Butyl alcohol	32	U	11	50
tert-Butylbenzene	0.40	U	0.16	1.0
Tetrachloroethene	0.40	U	0.20	1.0
Toluene	0.40	U	0.17	1.0
trans-1,2-Dichloroethene	0.40	U	0.15	1.0
trans-1,3-Dichloropropene	0.40	U	0.19	1.0
Trichloroethene	3.5		0.16	1.0
Trichlorofluoromethane	0.80	U	0.29	2.0
Vinyl chloride	0.20	U	0.10	1.5

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	95		81 - 118
4-Bromofluorobenzene (Surr)	104		85 - 114
Dibromofluoromethane (Surr)	107		80 - 119
Toluene-d8 (Surr)	99		89 - 112

Analytical Data

Client: GSI Environmental, Inc

Job Number: 280-70279-1

Client Sample ID: 54400-MW55D-0615

Lab Sample ID: 280-70279-6

Date Sampled: 06/04/2015 1510

Client Matrix: Water

Date Received: 06/05/2015 0700

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 280-281058	Instrument ID: VMS_Z
Prep Method: 5030B	Prep Batch: N/A	Lab File ID: Z8598.D
Dilution: 1.0		Initial Weight/Volume: 20 mL
Analysis Date: 06/09/2015 2250		Final Weight/Volume: 20 mL
Prep Date: 06/09/2015 2250		

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.80	U	0.17	1.0
1,1,1-Trichloroethane	0.40	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.80	U	0.20	1.0
1,1,2-Trichloroethane	0.80	U	0.32	1.0
1,1-Dichloroethane	0.80	U	0.16	1.0
1,1-Dichloroethene	16		0.14	1.0
1,1-Dichloropropene	0.40	U	0.15	1.0
1,2,3-Trichlorobenzene	0.80	U	0.18	1.0
1,2,3-Trichloropropane	0.80	U	0.77	3.0
1,2,4-Trichlorobenzene	0.80	U	0.32	1.0
1,2,4-Trimethylbenzene	0.40	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	1.6	U	0.81	5.0
1,2-Dibromoethane	0.40	U	0.18	1.0
1,2-Dichlorobenzene	0.40	U	0.13	1.0
1,2-Dichloroethane	0.40	U	0.13	1.0
1,2-Dichloropropane	0.40	U	0.13	1.0
1,3,5-Trimethylbenzene	0.40	U	0.14	1.0
1,3-Dichlorobenzene	0.40	U	0.16	1.0
1,3-Dichloropropane	0.80	U	0.15	1.0
1,4-Dichlorobenzene	0.40	U	0.16	1.0
2,2-Dichloropropane	0.40	U	0.20	1.0
2-Butanone (MEK)	4.0	U	1.8	6.0
2-Chlorotoluene	0.40	U	0.17	1.0
2-Hexanone	4.0	U	1.4	5.0
4-Chlorotoluene	0.80	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	3.2	U	1.0	5.0
Acetone	6.4	U	1.9	10
Benzene	0.40	U	0.16	1.0
Bromobenzene	0.40	U	0.17	1.0
Bromochloromethane	0.20	U	0.10	1.0
Bromodichloromethane	0.40	U	0.17	1.0
Bromoform	0.40	U	0.19	1.0
Bromomethane	0.80	U	0.21	2.0
Carbon disulfide	1.6	U	0.45	2.0
Carbon tetrachloride	3.2		0.19	2.0
Chlorobenzene	0.40	U	0.17	1.0
Chlorodibromomethane	0.40	U	0.17	1.0
Chloroethane	1.6	U	0.41	2.0
Chloroform	0.32	J	0.16	1.0
Chloromethane	0.80	U	0.30	2.0
cis-1,2-Dichloroethene	0.40	U	0.15	1.0
cis-1,3-Dichloropropene	0.40	U	0.16	1.0
Dibromomethane	0.40	U	0.17	1.0
Dichlorodifluoromethane	0.80	U	0.31	2.0
Ethylbenzene	0.40	U	0.16	1.0

Analytical Data

Client: GSI Environmental, Inc

Job Number: 280-70279-1

Client Sample ID: 54400-MW55D-0615

Lab Sample ID: 280-70279-6

Date Sampled: 06/04/2015 1510

Client Matrix: Water

Date Received: 06/05/2015 0700

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 280-281058	Instrument ID: VMS_Z
Prep Method: 5030B	Prep Batch: N/A	Lab File ID: Z8598.D
Dilution: 1.0		Initial Weight/Volume: 20 mL
Analysis Date: 06/09/2015 2250		Final Weight/Volume: 20 mL
Prep Date: 06/09/2015 2250		

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Hexachlorobutadiene	0.80	U	0.36	1.0
Isopropylbenzene	0.40	U	0.19	1.0
Methyl tert-butyl ether	0.80	U	0.25	5.0
Methylene Chloride	0.80	U	0.32	5.0
m-Xylene & p-Xylene	0.80	U	0.34	2.0
Naphthalene	0.80	U	0.22	1.0
n-Butylbenzene	0.80	U	0.32	1.0
N-Propylbenzene	0.40	U	0.16	1.0
o-Xylene	0.40	U	0.19	1.0
p-Isopropyltoluene	0.40	U	0.17	1.0
sec-Butylbenzene	0.40	U	0.17	1.0
Styrene	0.40	U	0.17	1.0
tert-Butyl alcohol	32	U	11	50
tert-Butylbenzene	0.40	U	0.16	1.0
Tetrachloroethene	0.40	U	0.20	1.0
Toluene	0.40	U	0.17	1.0
trans-1,2-Dichloroethene	0.40	U	0.15	1.0
trans-1,3-Dichloropropene	0.40	U	0.19	1.0
Trichloroethene	7.2		0.16	1.0
Trichlorofluoromethane	0.80	U	0.29	2.0
Vinyl chloride	0.20	U	0.10	1.5

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	98		81 - 118
4-Bromofluorobenzene (Surr)	104		85 - 114
Dibromofluoromethane (Surr)	108		80 - 119
Toluene-d8 (Surr)	101		89 - 112

Analytical Data

Client: GSI Environmental, Inc

Job Number: 280-70279-1

Client Sample ID: 54400-MW55D-0615

Lab Sample ID: 280-70279-6

Date Sampled: 06/04/2015 1510

Client Matrix: Water

Date Received: 06/05/2015 0700

6010C Metals (ICP)

Analysis Method: 6010C	Analysis Batch: 280-282271	Instrument ID: MT_025
Prep Method: 3010A	Prep Batch: 280-280888	Lab File ID: 25061715C.asc
Dilution: 1.0		Initial Weight/Volume: 50 mL
Analysis Date: 06/16/2015 1930		Final Weight/Volume: 50 mL
Prep Date: 06/10/2015 1445		

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Calcium	97000	J	35	1000
Iron	38	J	22	100
Magnesium	19000		11	500
Potassium	1400	J	240	3000
Sodium	47000		92	5000

6010C Metals (ICP)-Dissolved

Analysis Method: 6010C	Analysis Batch: 280-282103	Instrument ID: MT_026
Prep Method: 3005A	Prep Batch: 280-281106	Lab File ID: 26b061515.asc
Dilution: 1.0		Initial Weight/Volume: 50 mL
Analysis Date: 06/15/2015 1555		Final Weight/Volume: 50 mL
Prep Date: 06/12/2015 0900		

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Iron	85	U	22	100

Analytical Data

Client: GSI Environmental, Inc

Job Number: 280-70279-1

General Chemistry

Client Sample ID: 54400-MW55D-0615

Lab Sample ID: 280-70279-6

Date Sampled: 06/04/2015 1510

Client Matrix: Water

Date Received: 06/05/2015 0700

Analyte	Result	Qual	Units	DL	LOQ	Dil	Method
Chromium, hexavalent	0.0040	U	mg/L	0.0040	0.020	1.0	7196A
	Analysis Batch: 280-280576		Analysis Date: 06/05/2015 1139				
Nitrate as N	1.1		mg/L	0.042	0.50	1.0	9056
	Analysis Batch: 280-280541		Analysis Date: 06/05/2015 1138				
Nitrite as N	0.10	U	mg/L	0.049	0.50	1.0	9056
	Analysis Batch: 280-280541		Analysis Date: 06/05/2015 1138				
Chloride	20		mg/L	0.25	3.0	1.0	9056A
	Analysis Batch: 280-280542		Analysis Date: 06/05/2015 1138				
Sulfate	26		mg/L	0.23	5.0	1.0	9056A
	Analysis Batch: 280-280542		Analysis Date: 06/05/2015 1138				
Alkalinity	350		mg/L	1.1	5.0	1.0	SM 2320B
	Analysis Batch: 280-281711		Analysis Date: 06/12/2015 1338				
Bicarbonate Alkalinity as CaCO3	350		mg/L	1.1	5.0	1.0	SM 2320B
	Analysis Batch: 280-281711		Analysis Date: 06/12/2015 1338				
Carbonate Alkalinity as CaCO3	3.2	U	mg/L	1.1	5.0	1.0	SM 2320B
	Analysis Batch: 280-281711		Analysis Date: 06/12/2015 1338				
Total Dissolved Solids (TDS)	460		mg/L	4.7	10	1.0	SM 2540C
	Analysis Batch: 280-280587		Analysis Date: 06/05/2015 1421				

Client: GSI Environmental, Inc

Job Number: 280-70279-1

Surrogate Recovery Report

8260B Volatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	DBFM %Rec	DCA %Rec	TOL %Rec	BFB %Rec
280-70279-1	54403-TB19-0615	111	105	99	101
280-70279-2	54402-EB18-0615	108	97	102	105
280-70279-3	54400-MW43-0615	108	100	104	107
280-70279-4	54400-MW56-0615	109	99	102	105
280-70279-5	54400-MW55S-0615	107	95	99	104
280-70279-6	54400-MW55D-0615	108	98	101	104
MB 280-281058/6		108	97	103	104
MB 280-281475/6		103	100	98	97
LCS 280-281058/4		107	100	105	102
LCS 280-281475/4		107	107	106	101

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane (Surr)	80-119
DCA = 1,2-Dichloroethane-d4 (Surr)	81-118
TOL = Toluene-d8 (Surr)	89-112
BFB = 4-Bromofluorobenzene (Surr)	85-114

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-70279-1

Method Blank - Batch: 280-281058

**Method: 8260B
Preparation: 5030B**

Lab Sample ID: MB 280-281058/6
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 06/09/2015 1856
 Prep Date: 06/09/2015 1856
 Leach Date: N/A

Analysis Batch: 280-281058
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: VMS_Z
 Lab File ID: Z8588.D
 Initial Weight/Volume: 20 mL
 Final Weight/Volume: 20 mL

Analyte	Result	Qual	DL	LOQ
1,1,1,2-Tetrachloroethane	0.80	U	0.17	1.0
1,1,1-Trichloroethane	0.40	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.80	U	0.20	1.0
1,1,2-Trichloroethane	0.80	U	0.32	1.0
1,1-Dichloroethane	0.80	U	0.16	1.0
1,1-Dichloroethene	0.80	U	0.14	1.0
1,1-Dichloropropene	0.40	U	0.15	1.0
1,2,3-Trichlorobenzene	0.229	J	0.18	1.0
1,2,3-Trichloropropane	0.80	U	0.77	3.0
1,2,4-Trichlorobenzene	0.80	U	0.32	1.0
1,2,4-Trimethylbenzene	0.40	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	1.6	U	0.81	5.0
1,2-Dibromoethane	0.40	U	0.18	1.0
1,2-Dichlorobenzene	0.40	U	0.13	1.0
1,2-Dichloroethane	0.40	U	0.13	1.0
1,2-Dichloropropane	0.40	U	0.13	1.0
1,3,5-Trimethylbenzene	0.40	U	0.14	1.0
1,3-Dichlorobenzene	0.40	U	0.16	1.0
1,3-Dichloropropane	0.80	U	0.15	1.0
1,4-Dichlorobenzene	0.40	U	0.16	1.0
2,2-Dichloropropane	0.40	U	0.20	1.0
2-Butanone (MEK)	4.0	U	1.8	6.0
2-Chlorotoluene	0.40	U	0.17	1.0
2-Hexanone	4.0	U	1.4	5.0
4-Chlorotoluene	0.80	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	3.2	U	1.0	5.0
Acetone	6.4	U	1.9	10
Benzene	0.40	U	0.16	1.0
Bromobenzene	0.40	U	0.17	1.0
Bromochloromethane	0.20	U	0.10	1.0
Bromodichloromethane	0.40	U	0.17	1.0
Bromoform	0.40	U	0.19	1.0
Bromomethane	0.80	U	0.21	2.0
Carbon disulfide	1.6	U	0.45	2.0
Carbon tetrachloride	0.40	U	0.19	2.0
Chlorobenzene	0.40	U	0.17	1.0
Chlorodibromomethane	0.40	U	0.17	1.0
Chloroethane	1.6	U	0.41	2.0
Chloroform	0.40	U	0.16	1.0
Chloromethane	0.80	U	0.30	2.0
cis-1,2-Dichloroethene	0.40	U	0.15	1.0
cis-1,3-Dichloropropene	0.40	U	0.16	1.0
Dibromomethane	0.40	U	0.17	1.0
Dichlorodifluoromethane	0.80	U	0.31	2.0

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-70279-1

Method Blank - Batch: 280-281058

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 280-281058/6
Client Matrix: Water
Dilution: 1.0
Analysis Date: 06/09/2015 1856
Prep Date: 06/09/2015 1856
Leach Date: N/A

Analysis Batch: 280-281058
Prep Batch: N/A
Leach Batch: N/A
Units: ug/L

Instrument ID: VMS_Z
Lab File ID: Z8588.D
Initial Weight/Volume: 20 mL
Final Weight/Volume: 20 mL

Analyte	Result	Qual	DL	LOQ
Ethylbenzene	0.40	U	0.16	1.0
Hexachlorobutadiene	0.80	U	0.36	1.0
Isopropylbenzene	0.40	U	0.19	1.0
Methyl tert-butyl ether	0.80	U	0.25	5.0
Methylene Chloride	0.534	J	0.32	5.0
m-Xylene & p-Xylene	0.80	U	0.34	2.0
Naphthalene	0.80	U	0.22	1.0
n-Butylbenzene	0.80	U	0.32	1.0
N-Propylbenzene	0.40	U	0.16	1.0
o-Xylene	0.40	U	0.19	1.0
p-Isopropyltoluene	0.40	U	0.17	1.0
sec-Butylbenzene	0.40	U	0.17	1.0
Styrene	0.40	U	0.17	1.0
tert-Butyl alcohol	32	U	11	50
tert-Butylbenzene	0.40	U	0.16	1.0
Tetrachloroethene	0.40	U	0.20	1.0
Toluene	0.40	U	0.17	1.0
trans-1,2-Dichloroethene	0.40	U	0.15	1.0
trans-1,3-Dichloropropene	0.40	U	0.19	1.0
Trichloroethene	0.40	U	0.16	1.0
Trichlorofluoromethane	0.80	U	0.29	2.0
Vinyl chloride	0.20	U	0.10	1.5

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	97	81 - 118
4-Bromofluorobenzene (Surr)	104	85 - 114
Dibromofluoromethane (Surr)	108	80 - 119
Toluene-d8 (Surr)	103	89 - 112

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-70279-1

Lab Control Sample - Batch: 280-281058

**Method: 8260B
Preparation: 5030B**

Lab Sample ID: LCS 280-281058/4	Analysis Batch: 280-281058	Instrument ID: VMS_Z
Client Matrix: Water	Prep Batch: N/A	Lab File ID: Z8589.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 20 mL
Analysis Date: 06/09/2015 1919	Units: ug/L	Final Weight/Volume: 20 mL
Prep Date: 06/09/2015 1919		
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1,1,2-Tetrachloroethane	5.00	4.59	92	78 - 124	
1,1,1-Trichloroethane	5.00	4.71	94	74 - 131	
1,1,2,2-Tetrachloroethane	5.00	4.42	88	71 - 121	
1,1,2-Trichloroethane	5.00	4.89	98	80 - 119	
1,1-Dichloroethane	5.00	4.41	88	77 - 125	
1,1-Dichloroethene	5.00	4.87	97	71 - 131	
1,1-Dichloropropene	5.00	4.91	98	79 - 125	
1,2,3-Trichlorobenzene	5.00	4.67	93	69 - 129	
1,2,3-Trichloropropane	5.00	3.96	79	73 - 122	
1,2,4-Trichlorobenzene	5.00	4.79	96	69 - 130	
1,2,4-Trimethylbenzene	5.00	4.42	88	76 - 124	
1,2-Dibromo-3-Chloropropane	5.00	4.10	82	62 - 128	J
1,2-Dibromoethane	5.00	4.12	82	77 - 121	
1,2-Dichlorobenzene	5.00	4.70	94	80 - 119	
1,2-Dichloroethane	5.00	4.27	85	73 - 128	
1,2-Dichloropropane	5.00	4.22	84	78 - 122	
1,3,5-Trimethylbenzene	5.00	4.48	90	75 - 124	
1,3-Dichlorobenzene	5.00	4.78	96	80 - 119	
1,3-Dichloropropane	5.00	4.15	83	80 - 119	
1,4-Dichlorobenzene	5.00	4.71	94	79 - 118	
2,2-Dichloropropane	5.00	4.67	93	60 - 139	
2-Butanone (MEK)	20.0	17.3	87	56 - 143	
2-Chlorotoluene	5.00	4.79	96	79 - 122	M
2-Hexanone	20.0	15.9	80	57 - 139	
4-Chlorotoluene	5.00	4.68	94	78 - 122	
4-Methyl-2-pentanone (MIBK)	20.0	17.3	87	67 - 130	
Acetone	20.0	17.3	86	39 - 160	M
Benzene	5.00	4.87	97	79 - 120	
Bromobenzene	5.00	4.66	93	80 - 120	
Bromochloromethane	5.00	5.22	104	78 - 123	
Bromodichloromethane	5.00	4.64	93	79 - 125	
Bromoform	5.00	4.32	86	66 - 130	
Bromomethane	5.00	5.25	105	53 - 141	
Carbon disulfide	5.00	4.66	93	64 - 133	
Carbon tetrachloride	5.00	4.85	97	72 - 136	
Chlorobenzene	5.00	4.68	94	82 - 118	
Chlorodibromomethane	5.00	4.48	90	74 - 126	
Chloroethane	5.00	5.40	108	60 - 138	
Chloroform	5.00	4.70	94	79 - 124	
Chloromethane	5.00	5.11	102	50 - 139	M
cis-1,2-Dichloroethene	5.00	4.99	100	78 - 123	
cis-1,3-Dichloropropene	5.00	4.23	85	75 - 124	
Dibromomethane	5.00	4.62	92	79 - 123	
Dichlorodifluoromethane	5.00	5.64	113	32 - 152	
Ethylbenzene	5.00	4.49	90	79 - 121	
Hexachlorobutadiene	5.00	4.71	94	66 - 134	

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-70279-1

Lab Control Sample - Batch: 280-281058

**Method: 8260B
Preparation: 5030B**

Lab Sample ID:	LCS 280-281058/4	Analysis Batch:	280-281058	Instrument ID:	VMS_Z
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	Z8589.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	06/09/2015 1919	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	06/09/2015 1919				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Isopropylbenzene	5.00	4.52	90	72 - 131	
Methyl tert-butyl ether	5.00	4.76	95	71 - 124	J
Methylene Chloride	5.00	5.30	106	74 - 124	
m-Xylene & p-Xylene	5.00	4.55	91	80 - 121	
Naphthalene	5.00	4.80	96	61 - 128	
n-Butylbenzene	5.00	4.48	90	75 - 128	
N-Propylbenzene	5.00	4.85	97	76 - 126	
o-Xylene	5.00	4.61	92	78 - 122	
p-Isopropyltoluene	5.00	4.80	96	77 - 127	
sec-Butylbenzene	5.00	4.90	98	77 - 126	
Styrene	5.00	4.43	89	78 - 123	
tert-Butyl alcohol	50.0	52.8	106	68 - 129	
tert-Butylbenzene	5.00	4.82	96	78 - 124	
Tetrachloroethene	5.00	4.72	94	74 - 129	
Toluene	5.00	4.72	94	80 - 121	
trans-1,2-Dichloroethene	5.00	5.28	106	75 - 124	
trans-1,3-Dichloropropene	5.00	4.82	96	73 - 127	
Trichloroethene	5.00	4.91	98	79 - 123	
Trichlorofluoromethane	5.00	4.79	96	65 - 141	
Vinyl chloride	5.00	5.15	103	58 - 137	
Surrogate			% Rec	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)			100	81 - 118	
4-Bromofluorobenzene (Surr)			102	85 - 114	
Dibromofluoromethane (Surr)			107	80 - 119	
Toluene-d8 (Surr)			105	89 - 112	

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-70279-1

Method Blank - Batch: 280-281475

**Method: 8260B
Preparation: 5030B**

Lab Sample ID: MB 280-281475/6
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 06/11/2015 2035
 Prep Date: 06/11/2015 2035
 Leach Date: N/A

Analysis Batch: 280-281475
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: VMS_H
 Lab File ID: H3594.D
 Initial Weight/Volume: 20 mL
 Final Weight/Volume: 20 mL

Analyte	Result	Qual	DL	LOQ
1,1,1,2-Tetrachloroethane	0.80	U	0.17	1.0
1,1,1-Trichloroethane	0.40	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.80	U	0.20	1.0
1,1,2-Trichloroethane	0.80	U	0.32	1.0
1,1-Dichloroethane	0.80	U	0.16	1.0
1,1-Dichloroethene	0.80	U	0.14	1.0
1,1-Dichloropropene	0.40	U	0.15	1.0
1,2,3-Trichlorobenzene	0.80	U	0.18	1.0
1,2,3-Trichloropropane	0.80	U	0.77	3.0
1,2,4-Trichlorobenzene	0.80	U	0.32	1.0
1,2,4-Trimethylbenzene	0.40	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	1.6	U	0.81	5.0
1,2-Dibromoethane	0.40	U	0.18	1.0
1,2-Dichlorobenzene	0.40	U	0.13	1.0
1,2-Dichloroethane	0.40	U	0.13	1.0
1,2-Dichloropropane	0.40	U	0.13	1.0
1,3,5-Trimethylbenzene	0.40	U	0.14	1.0
1,3-Dichlorobenzene	0.40	U	0.16	1.0
1,3-Dichloropropane	0.80	U	0.15	1.0
1,4-Dichlorobenzene	0.40	U	0.16	1.0
2,2-Dichloropropane	0.40	U	0.20	1.0
2-Butanone (MEK)	4.0	U	1.8	6.0
2-Chlorotoluene	0.40	U	0.17	1.0
2-Hexanone	4.0	U	1.4	5.0
4-Chlorotoluene	0.80	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	3.2	U	1.0	5.0
Acetone	6.4	U	1.9	10
Benzene	0.40	U	0.16	1.0
Bromobenzene	0.40	U	0.17	1.0
Bromochloromethane	0.20	U	0.10	1.0
Bromodichloromethane	0.40	U	0.17	1.0
Bromoform	0.40	U	0.19	1.0
Bromomethane	0.80	U	0.21	2.0
Carbon disulfide	1.6	U	0.45	2.0
Carbon tetrachloride	0.40	U	0.19	2.0
Chlorobenzene	0.40	U	0.17	1.0
Chlorodibromomethane	0.40	U	0.17	1.0
Chloroethane	1.6	U	0.41	2.0
Chloroform	0.40	U	0.16	1.0
Chloromethane	0.80	U	0.30	2.0
cis-1,2-Dichloroethene	0.40	U	0.15	1.0
cis-1,3-Dichloropropene	0.40	U	0.16	1.0
Dibromomethane	0.40	U	0.17	1.0
Dichlorodifluoromethane	0.80	U	0.31	2.0

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-70279-1

Method Blank - Batch: 280-281475

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 280-281475/6
Client Matrix: Water
Dilution: 1.0
Analysis Date: 06/11/2015 2035
Prep Date: 06/11/2015 2035
Leach Date: N/A

Analysis Batch: 280-281475
Prep Batch: N/A
Leach Batch: N/A
Units: ug/L

Instrument ID: VMS_H
Lab File ID: H3594.D
Initial Weight/Volume: 20 mL
Final Weight/Volume: 20 mL

Analyte	Result	Qual	DL	LOQ
Ethylbenzene	0.40	U	0.16	1.0
Hexachlorobutadiene	0.80	U	0.36	1.0
Isopropylbenzene	0.40	U	0.19	1.0
Methyl tert-butyl ether	0.80	U	0.25	5.0
Methylene Chloride	0.80	U	0.32	5.0
m-Xylene & p-Xylene	0.80	U	0.34	2.0
Naphthalene	0.80	U	0.22	1.0
n-Butylbenzene	0.80	U	0.32	1.0
N-Propylbenzene	0.40	U	0.16	1.0
o-Xylene	0.40	U	0.19	1.0
p-Isopropyltoluene	0.40	U	0.17	1.0
sec-Butylbenzene	0.40	U	0.17	1.0
Styrene	0.40	U	0.17	1.0
tert-Butyl alcohol	32	U	11	50
tert-Butylbenzene	0.40	U	0.16	1.0
Tetrachloroethene	0.40	U	0.20	1.0
Toluene	0.40	U	0.17	1.0
trans-1,2-Dichloroethene	0.40	U	0.15	1.0
trans-1,3-Dichloropropene	0.40	U	0.19	1.0
Trichloroethene	0.40	U	0.16	1.0
Trichlorofluoromethane	0.80	U	0.29	2.0
Vinyl chloride	0.20	U	0.10	1.5

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100	81 - 118
4-Bromofluorobenzene (Surr)	97	85 - 114
Dibromofluoromethane (Surr)	103	80 - 119
Toluene-d8 (Surr)	98	89 - 112

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-70279-1

Lab Control Sample - Batch: 280-281475

**Method: 8260B
Preparation: 5030B**

Lab Sample ID: LCS 280-281475/4	Analysis Batch: 280-281475	Instrument ID: VMS_H
Client Matrix: Water	Prep Batch: N/A	Lab File ID: H3592.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 20 mL
Analysis Date: 06/11/2015 1950	Units: ug/L	Final Weight/Volume: 20 mL
Prep Date: 06/11/2015 1950		
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1,1,2-Tetrachloroethane	5.00	4.18	84	78 - 124	
1,1,1-Trichloroethane	5.00	4.41	88	74 - 131	
1,1,2,2-Tetrachloroethane	5.00	4.15	83	71 - 121	
1,1,2-Trichloroethane	5.00	4.31	86	80 - 119	
1,1-Dichloroethane	5.00	4.43	89	77 - 125	
1,1-Dichloroethene	5.00	4.28	86	71 - 131	
1,1-Dichloropropene	5.00	4.54	91	79 - 125	
1,2,3-Trichlorobenzene	5.00	4.20	84	69 - 129	
1,2,3-Trichloropropane	5.00	4.09	82	73 - 122	
1,2,4-Trichlorobenzene	5.00	4.18	84	69 - 130	
1,2,4-Trimethylbenzene	5.00	4.04	81	76 - 124	
1,2-Dibromo-3-Chloropropane	5.00	4.30	86	62 - 128	J
1,2-Dibromoethane	5.00	4.22	84	77 - 121	
1,2-Dichlorobenzene	5.00	4.11	82	80 - 119	
1,2-Dichloroethane	5.00	4.57	91	73 - 128	
1,2-Dichloropropane	5.00	4.35	87	78 - 122	
1,3,5-Trimethylbenzene	5.00	4.05	81	75 - 124	
1,3-Dichlorobenzene	5.00	4.00	80	80 - 119	
1,3-Dichloropropane	5.00	4.26	85	80 - 119	
1,4-Dichlorobenzene	5.00	4.17	83	79 - 118	
2,2-Dichloropropane	5.00	4.37	87	60 - 139	
2-Butanone (MEK)	20.0	22.5	113	56 - 143	
2-Chlorotoluene	5.00	4.06	81	79 - 122	
2-Hexanone	20.0	20.1	101	57 - 139	
4-Chlorotoluene	5.00	4.10	82	78 - 122	
4-Methyl-2-pentanone (MIBK)	20.0	22.5	112	67 - 130	
Acetone	20.0	20.2	101	39 - 160	
Benzene	5.00	4.47	89	79 - 120	
Bromobenzene	5.00	4.22	84	80 - 120	
Bromochloromethane	5.00	4.49	90	78 - 123	
Bromodichloromethane	5.00	4.37	87	79 - 125	
Bromoform	5.00	4.35	87	66 - 130	
Bromomethane	5.00	5.42	108	53 - 141	
Carbon disulfide	5.00	4.06	81	64 - 133	
Carbon tetrachloride	5.00	4.56	91	72 - 136	
Chlorobenzene	5.00	4.17	83	82 - 118	
Chlorodibromomethane	5.00	4.28	86	74 - 126	
Chloroethane	5.00	5.54	111	60 - 138	
Chloroform	5.00	4.50	90	79 - 124	
Chloromethane	5.00	5.09	102	50 - 139	
cis-1,2-Dichloroethene	5.00	4.52	90	78 - 123	
cis-1,3-Dichloropropene	5.00	4.41	88	75 - 124	
Dibromomethane	5.00	4.42	88	79 - 123	
Dichlorodifluoromethane	5.00	5.72	114	32 - 152	
Ethylbenzene	5.00	4.18	84	79 - 121	
Hexachlorobutadiene	5.00	4.09	82	66 - 134	

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-70279-1

Lab Control Sample - Batch: 280-281475

**Method: 8260B
Preparation: 5030B**

Lab Sample ID: LCS 280-281475/4	Analysis Batch: 280-281475	Instrument ID: VMS_H
Client Matrix: Water	Prep Batch: N/A	Lab File ID: H3592.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 20 mL
Analysis Date: 06/11/2015 1950	Units: ug/L	Final Weight/Volume: 20 mL
Prep Date: 06/11/2015 1950		
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Isopropylbenzene	5.00	4.09	82	72 - 131	
Methyl tert-butyl ether	5.00	4.57	91	71 - 124	J
Methylene Chloride	5.00	4.76	95	74 - 124	J
m-Xylene & p-Xylene	5.00	4.05	81	80 - 121	
Naphthalene	5.00	4.18	84	61 - 128	
n-Butylbenzene	5.00	3.96	79	75 - 128	
N-Propylbenzene	5.00	4.07	81	76 - 126	
o-Xylene	5.00	4.17	83	78 - 122	
p-Isopropyltoluene	5.00	4.06	81	77 - 127	
sec-Butylbenzene	5.00	4.04	81	77 - 126	
Styrene	5.00	4.11	82	78 - 123	
tert-Butyl alcohol	50.0	43.6	87	68 - 129	J
tert-Butylbenzene	5.00	3.99	80	78 - 124	
Tetrachloroethene	5.00	4.20	84	74 - 129	
Toluene	5.00	4.46	89	80 - 121	
trans-1,2-Dichloroethene	5.00	4.45	89	75 - 124	
trans-1,3-Dichloropropene	5.00	4.74	95	73 - 127	
Trichloroethene	5.00	4.56	91	79 - 123	
Trichlorofluoromethane	5.00	5.64	113	65 - 141	
Vinyl chloride	5.00	5.31	106	58 - 137	
Surrogate		% Rec		Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		107		81 - 118	
4-Bromofluorobenzene (Surr)		101		85 - 114	
Dibromofluoromethane (Surr)		107		80 - 119	
Toluene-d8 (Surr)		106		89 - 112	

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-70279-1

Method Blank - Batch: 280-280888

Method: 6010C
Preparation: 3010A

Lab Sample ID: MB 280-280888/1-A	Analysis Batch: 280-282271	Instrument ID: MT_025
Client Matrix: Water	Prep Batch: 280-280888	Lab File ID: 25061715C.asc
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 50 mL
Analysis Date: 06/16/2015 1922	Units: ug/L	Final Weight/Volume: 50 mL
Prep Date: 06/10/2015 1445		
Leach Date: N/A		

Analyte	Result	Qual	DL	LOQ
Calcium	140	U	35	1000
Iron	85	U	22	100
Magnesium	40	U	11	500
Potassium	940	U	240	3000
Sodium	169	J	92	5000

Lab Control Sample - Batch: 280-280888

Method: 6010C
Preparation: 3010A

Lab Sample ID: LCS 280-280888/2-A	Analysis Batch: 280-282271	Instrument ID: MT_025
Client Matrix: Water	Prep Batch: 280-280888	Lab File ID: 25061715C.asc
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 50 mL
Analysis Date: 06/16/2015 1928	Units: ug/L	Final Weight/Volume: 50 mL
Prep Date: 06/10/2015 1445		
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Calcium	50000	48600	97	87 - 113	
Iron	1000	946	95	87 - 115	
Magnesium	50000	51200	102	85 - 113	
Potassium	50000	52600	105	86 - 114	
Sodium	50000	52400	105	87 - 115	

Post Digestion Spike - Batch: 280-280888

Method: 6010C
Preparation: 3010A

Lab Sample ID: 280-70279-6	Analysis Batch: 280-282271	Instrument ID: MT_025
Client Matrix: Water	Prep Batch: 280-280888	Lab File ID: 25061715C.asc
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 50 mL
Analysis Date: 06/16/2015 1940	Units: ug/L	Final Weight/Volume: 50 mL
Prep Date: 06/10/2015 1445		
Leach Date: N/A		

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Calcium	97000	20000	112000	77	80 - 120	J
Iron	38 J	1000	954	92	80 - 120	
Magnesium	19000	20000	38400	97	80 - 120	
Potassium	1400 J	20000	21900	103	80 - 120	
Sodium	47000	20000	66700	98	80 - 120	

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-70279-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-280888**

**Method: 6010C
Preparation: 3010A**

MS Lab Sample ID: 280-70279-6
Client Matrix: Water
Dilution: 1.0
Analysis Date: 06/16/2015 1935
Prep Date: 06/10/2015 1445
Leach Date: N/A

Analysis Batch: 280-282271
Prep Batch: 280-280888
Leach Batch: N/A

Instrument ID: MT_025
Lab File ID: 25061715C.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 280-70279-6
Client Matrix: Water
Dilution: 1.0
Analysis Date: 06/16/2015 1938
Prep Date: 06/10/2015 1445
Leach Date: N/A

Analysis Batch: 280-282271
Prep Batch: 280-280888
Leach Batch: N/A

Instrument ID: MT_025
Lab File ID: 25061715C.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Calcium	92	93	87 - 113	0	20		
Iron	94	94	87 - 115	0	20		
Magnesium	102	103	85 - 113	1	20		
Potassium	107	106	86 - 114	0	20		
Sodium	101	101	87 - 115	0	20		

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-280888**

**Method: 6010C
Preparation: 3010A**

MS Lab Sample ID: 280-70279-6
Client Matrix: Water
Dilution: 1.0
Analysis Date: 06/16/2015 1935
Prep Date: 06/10/2015 1445
Leach Date: N/A

Units: ug/L

MSD Lab Sample ID: 280-70279-6
Client Matrix: Water
Dilution: 1.0
Analysis Date: 06/16/2015 1938
Prep Date: 06/10/2015 1445
Leach Date: N/A

Analyte	Sample		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
	Result/Qual					
Calcium	97000		50000	50000	143000	143000
Iron	38	J	1000	1000	977	978
Magnesium	19000		50000	50000	70200	70700
Potassium	1400	J	50000	50000	54600	54400
Sodium	47000		50000	50000	97800	97800

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-70279-1

Serial Dilution - Batch: 280-280888

Method: 6010C
Preparation: 3010A

Lab Sample ID:	280-70279-6	Analysis Batch:	280-282271	Instrument ID:	MT_025
Client Matrix:	Water	Prep Batch:	280-280888	Lab File ID:	25061715C.asc
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	06/16/2015 1933	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	06/10/2015 1445				
Leach Date:	N/A				

Analyte	Sample	Result/Qual	Result	%Diff	Limit	Qual
Calcium	97000		96900	0.04	10	D
Iron	38	J	430	NC	10	U
Magnesium	19000		20100	NC	10	D
Potassium	1400	J	2250	NC	10	J D
Sodium	47000		46700	NC	10	D

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-70279-1

Method Blank - Batch: 280-281106

Lab Sample ID: MB 280-281106/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 06/15/2015 1550
 Prep Date: 06/12/2015 0900
 Leach Date: N/A

Analysis Batch: 280-282103
 Prep Batch: 280-281106
 Leach Batch: N/A
 Units: ug/L

**Method: 6010C
 Preparation: 3005A
 Total Recoverable**

Instrument ID: MT_026
 Lab File ID: 26b061515.asc
 Initial Weight/Volume: 50 mL
 Final Weight/Volume: 50 mL

Analyte	Result	Qual	DL	LOQ
Iron	85	U	22	100

Lab Control Sample - Batch: 280-281106

Lab Sample ID: LCS 280-281106/2-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 06/15/2015 1553
 Prep Date: 06/12/2015 0900
 Leach Date: N/A

Analysis Batch: 280-282103
 Prep Batch: 280-281106
 Leach Batch: N/A
 Units: ug/L

**Method: 6010C
 Preparation: 3005A
 Total Recoverable**

Instrument ID: MT_026
 Lab File ID: 26b061515.asc
 Initial Weight/Volume: 50 mL
 Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Iron	1000	1000	100	87 - 115	

Post Digestion Spike - Batch: 280-281106

Lab Sample ID: 280-70279-6
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 06/15/2015 1605
 Prep Date: 06/12/2015 0900
 Leach Date: N/A

Analysis Batch: 280-282103
 Prep Batch: 280-281106
 Leach Batch: N/A
 Units: ug/L

**Method: 6010C
 Preparation: 3005A
 Dissolved**

Instrument ID: MT_026
 Lab File ID: 26b061515.asc
 Initial Weight/Volume: 50 mL
 Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Iron	85 U	1000	990	99	80 - 120	

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-70279-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-281106**

**Method: 6010C
Preparation: 3005A
Dissolved**

MS Lab Sample ID: 280-70279-6
Client Matrix: Water
Dilution: 1.0
Analysis Date: 06/15/2015 1600
Prep Date: 06/12/2015 0900
Leach Date: N/A

Analysis Batch: 280-282103
Prep Batch: 280-281106
Leach Batch: N/A

Instrument ID: MT_026
Lab File ID: 26b061515.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 280-70279-6
Client Matrix: Water
Dilution: 1.0
Analysis Date: 06/15/2015 1603
Prep Date: 06/12/2015 0900
Leach Date: N/A

Analysis Batch: 280-282103
Prep Batch: 280-281106
Leach Batch: N/A

Instrument ID: MT_026
Lab File ID: 26b061515.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Iron	97	98	87 - 115	1	20		

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-281106**

**Method: 6010C
Preparation: 3005A
Dissolved**

MS Lab Sample ID: 280-70279-6
Client Matrix: Water
Dilution: 1.0
Analysis Date: 06/15/2015 1600
Prep Date: 06/12/2015 0900
Leach Date: N/A

Units: ug/L

MSD Lab Sample ID: 280-70279-6
Client Matrix: Water
Dilution: 1.0
Analysis Date: 06/15/2015 1603
Prep Date: 06/12/2015 0900
Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Iron	85 U	1000	1000	969	980

Serial Dilution - Batch: 280-281106

**Method: 6010C
Preparation: 3005A
Dissolved**

Lab Sample ID: 280-70279-6
Client Matrix: Water
Dilution: 5.0
Analysis Date: 06/15/2015 1558
Prep Date: 06/12/2015 0900
Leach Date: N/A

Analysis Batch: 280-282103
Prep Batch: 280-281106
Leach Batch: N/A
Units: ug/L

Instrument ID: MT_026
Lab File ID: 26b061515.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Result	%Diff	Limit	Qual
Iron	85 U	430	NC	10	U

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-70279-1

Method Blank - Batch: 280-280576

**Method: 7196A
Preparation: N/A**

Lab Sample ID: MB 280-280576/5
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 06/05/2015 1139
 Prep Date: N/A
 Leach Date: N/A

Analysis Batch: 280-280576
 Prep Batch: N/A
 Leach Batch: N/A
 Units: mg/L

Instrument ID: WC_HSPEC_7196
 Lab File ID: N/A
 Initial Weight/Volume: 10 mL
 Final Weight/Volume: 10 mL

Analyte	Result	Qual	DL	LOQ
Chromium, hexavalent	0.0040	U	0.0040	0.020

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-280576**

**Method: 7196A
Preparation: N/A**

LCS Lab Sample ID: LCS 280-280576/3
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 06/05/2015 1139
 Prep Date: N/A
 Leach Date: N/A

Analysis Batch: 280-280576
 Prep Batch: N/A
 Leach Batch: N/A
 Units: mg/L

Instrument ID: WC_HSPEC_7196
 Lab File ID: N/A
 Initial Weight/Volume: 10 mL
 Final Weight/Volume: 10 mL

LCSD Lab Sample ID: LCSD 280-280576/4
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 06/05/2015 1139
 Prep Date: N/A
 Leach Date: N/A

Analysis Batch: 280-280576
 Prep Batch: N/A
 Leach Batch: N/A
 Units: mg/L

Instrument ID: WC_HSPEC_7196
 Lab File ID: N/A
 Initial Weight/Volume: 10 mL
 Final Weight/Volume: 10 mL

Analyte	<u>% Rec.</u>		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Chromium, hexavalent	100	98	90 - 111	2	20		

**Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-280576**

**Method: 7196A
Preparation: N/A**

LCS Lab Sample ID: LCS 280-280576/3
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 06/05/2015 1139
 Prep Date: N/A
 Leach Date: N/A

Units: mg/L

LCSD Lab Sample ID: LCSD 280-280576/4
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 06/05/2015 1139
 Prep Date: N/A
 Leach Date: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Chromium, hexavalent	0.100	0.100	0.100	0.0983

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-70279-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-280576**

**Method: 7196A
Preparation: N/A**

MS Lab Sample ID: 280-70279-6
Client Matrix: Water
Dilution: 1.0
Analysis Date: 06/05/2015 1139
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 280-280576
Prep Batch: N/A
Leach Batch: N/A

Instrument ID: WC_HSPEC_7196
Lab File ID: N/A
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

MSD Lab Sample ID: 280-70279-6
Client Matrix: Water
Dilution: 1.0
Analysis Date: 06/05/2015 1139
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 280-280576
Prep Batch: N/A
Leach Batch: N/A

Instrument ID: WC_HSPEC_7196
Lab File ID: N/A
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Chromium, hexavalent	101	100	90 - 111	1	20		

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-280576**

**Method: 7196A
Preparation: N/A**

MS Lab Sample ID: 280-70279-6
Client Matrix: Water
Dilution: 1.0
Analysis Date: 06/05/2015 1139
Prep Date: N/A
Leach Date: N/A

Units: mg/L

MSD Lab Sample ID: 280-70279-6
Client Matrix: Water
Dilution: 1.0
Analysis Date: 06/05/2015 1139
Prep Date: N/A
Leach Date: N/A

Analyte	Sample		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
	Result/Qual					
Chromium, hexavalent	0.0040	U	0.100	0.100	0.101	0.100

Duplicate - Batch: 280-280576

**Method: 7196A
Preparation: N/A**

Lab Sample ID: 280-70279-6
Client Matrix: Water
Dilution: 1.0
Analysis Date: 06/05/2015 1139
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 280-280576
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WC_HSPEC_7196
Lab File ID: N/A
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Chromium, hexavalent	0.0040 U	0.0040	NC	20	U

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-70279-1

Method Blank - Batch: 280-280541

Method: 9056
Preparation: N/A

Lab Sample ID: MB 280-280541/6	Analysis Batch: 280-280541	Instrument ID: WC_IonChrom8
Client Matrix: Water	Prep Batch: N/A	Lab File ID: 13.0000.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 06/05/2015 1121	Units: mg/L	Final Weight/Volume: 5 mL
Prep Date: N/A		
Leach Date: N/A		

Analyte	Result	Qual	DL	LOQ
Nitrate as N	0.10	U	0.042	0.50
Nitrite as N	0.10	U	0.049	0.50

Method Reporting Limit Check - Batch: 280-280541

Method: 9056
Preparation: N/A

Lab Sample ID: MRL 280-280541/3	Analysis Batch: 280-280541	Instrument ID: WC_IonChrom8
Client Matrix: Water	Prep Batch: N/A	Lab File ID: 10.0000.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 06/05/2015 1031	Units: mg/L	Final Weight/Volume: 5 mL
Prep Date: N/A		
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate as N	0.200	0.217	109	50 - 150	J
Nitrite as N	0.200	0.171	86	50 - 150	J

Lab Control Sample/

Method: 9056
Preparation: N/A

Lab Control Sample Duplicate Recovery Report - Batch: 280-280541

LCS Lab Sample ID: LCS 280-280541/4	Analysis Batch: 280-280541	Instrument ID: WC_IonChrom8
Client Matrix: Water	Prep Batch: N/A	Lab File ID: 11.0000.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 06/05/2015 1048	Units: mg/L	Final Weight/Volume: 5 mL
Prep Date: N/A		25 uL
Leach Date: N/A		

LCSD Lab Sample ID: LCSD 280-280541/5	Analysis Batch: 280-280541	Instrument ID: WC_IonChrom8
Client Matrix: Water	Prep Batch: N/A	Lab File ID: 12.0000.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 06/05/2015 1104	Units: mg/L	Final Weight/Volume: 5 mL
Prep Date: N/A		25 uL
Leach Date: N/A		

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Nitrate as N	100	100	88 - 111	0	10		
Nitrite as N	107	107	87 - 111	1	10		

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-70279-1

**Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-280541**

**Method: 9056
Preparation: N/A**

LCS Lab Sample ID: LCS 280-280541/4 Units: mg/L
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 06/05/2015 1048
 Prep Date: N/A
 Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-280541/5
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 06/05/2015 1104
 Prep Date: N/A
 Leach Date: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Nitrate as N	5.00	5.00	5.01	5.01
Nitrite as N	5.00	5.00	5.34	5.37

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-280541**

**Method: 9056
Preparation: N/A**

MS Lab Sample ID: 280-70279-6
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 06/05/2015 1212
 Prep Date: N/A
 Leach Date: N/A

Analysis Batch: 280-280541
 Prep Batch: N/A
 Leach Batch: N/A

Instrument ID: WC_IonChrom8
 Lab File ID: 16.0000.d
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL
 25 uL

MSD Lab Sample ID: 280-70279-6
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 06/05/2015 1229
 Prep Date: N/A
 Leach Date: N/A

Analysis Batch: 280-280541
 Prep Batch: N/A
 Leach Batch: N/A

Instrument ID: WC_IonChrom8
 Lab File ID: 17.0000.d
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL
 25 uL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Nitrate as N	101	101	88 - 111	1	10		
Nitrite as N	105	106	87 - 111	1	10		

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-70279-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-280541**

**Method: 9056
Preparation: N/A**

MS Lab Sample ID: 280-70279-6
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 06/05/2015 1212
 Prep Date: N/A
 Leach Date: N/A

Units: mg/L

MSD Lab Sample ID: 280-70279-6
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 06/05/2015 1229
 Prep Date: N/A
 Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Nitrate as N	1.1	5.00	5.00	6.14	6.18
Nitrite as N	0.10 U	5.00	5.00	5.24	5.31

Duplicate - Batch: 280-280541

**Method: 9056
Preparation: N/A**

Lab Sample ID: 280-70279-6
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 06/05/2015 1155
 Prep Date: N/A
 Leach Date: N/A

Analysis Batch: 280-280541
 Prep Batch: N/A
 Leach Batch: N/A
 Units: mg/L

Instrument ID: WC_IonChrom8
 Lab File ID: 15.0000.d
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL
 25 uL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Nitrate as N	1.1	1.10	1	10	
Nitrite as N	0.10 U	0.10	NC	10	U

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-70279-1

Method Blank - Batch: 280-280542

**Method: 9056A
Preparation: N/A**

Lab Sample ID: MB 280-280542/6	Analysis Batch: 280-280542	Instrument ID: WC_IonChrom8
Client Matrix: Water	Prep Batch: N/A	Lab File ID: 13.0000.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 06/05/2015 1121	Units: mg/L	Final Weight/Volume: 5 mL
Prep Date: N/A		
Leach Date: N/A		

Analyte	Result	Qual	DL	LOQ
Chloride	0.50	U	0.25	3.0
Sulfate	0.50	U	0.23	5.0

Method Reporting Limit Check - Batch: 280-280542

**Method: 9056A
Preparation: N/A**

Lab Sample ID: MRL 280-280542/3	Analysis Batch: 280-280542	Instrument ID: WC_IonChrom8
Client Matrix: Water	Prep Batch: N/A	Lab File ID: 10.0000.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 06/05/2015 1031	Units: mg/L	Final Weight/Volume: 5 mL
Prep Date: N/A		
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chloride	2.50	2.58	103	50 - 150	J
Sulfate	2.50	2.54	102	50 - 150	J

Lab Control Sample/

**Method: 9056A
Preparation: N/A**

Lab Control Sample Duplicate Recovery Report - Batch: 280-280542

LCS Lab Sample ID: LCS 280-280542/4	Analysis Batch: 280-280542	Instrument ID: WC_IonChrom8
Client Matrix: Water	Prep Batch: N/A	Lab File ID: 11.0000.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 06/05/2015 1048	Units: mg/L	Final Weight/Volume: 5 mL
Prep Date: N/A		25 uL
Leach Date: N/A		

LCSD Lab Sample ID: LCSD 280-280542/5	Analysis Batch: 280-280542	Instrument ID: WC_IonChrom8
Client Matrix: Water	Prep Batch: N/A	Lab File ID: 12.0000.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 06/05/2015 1104	Units: mg/L	Final Weight/Volume: 5 mL
Prep Date: N/A		25 uL
Leach Date: N/A		

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Chloride	101	101	87 - 111	0	10		
Sulfate	102	102	87 - 112	0	10		

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-70279-1

**Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-280542**

**Method: 9056A
Preparation: N/A**

LCS Lab Sample ID: LCS 280-280542/4 Units: mg/L
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 06/05/2015 1048
 Prep Date: N/A
 Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-280542/5
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 06/05/2015 1104
 Prep Date: N/A
 Leach Date: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Chloride	100	100	101	101
Sulfate	100	100	102	102

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-280542**

**Method: 9056A
Preparation: N/A**

MS Lab Sample ID: 280-70279-6
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 06/05/2015 1212
 Prep Date: N/A
 Leach Date: N/A

Analysis Batch: 280-280542
 Prep Batch: N/A
 Leach Batch: N/A

Instrument ID: WC_IonChrom8
 Lab File ID: 16.0000.d
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL
 25 uL

MSD Lab Sample ID: 280-70279-6
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 06/05/2015 1229
 Prep Date: N/A
 Leach Date: N/A

Analysis Batch: 280-280542
 Prep Batch: N/A
 Leach Batch: N/A

Instrument ID: WC_IonChrom8
 Lab File ID: 17.0000.d
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL
 25 uL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Chloride	107	108	87 - 111	1	10		
Sulfate	107	108	87 - 112	1	10		

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-70279-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-280542**

**Method: 9056A
Preparation: N/A**

MS Lab Sample ID: 280-70279-6
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 06/05/2015 1212
 Prep Date: N/A
 Leach Date: N/A

Units: mg/L

MSD Lab Sample ID: 280-70279-6
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 06/05/2015 1229
 Prep Date: N/A
 Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Chloride	20	25.0	25.0	46.6	46.9
Sulfate	26	25.0	25.0	52.9	53.2

Duplicate - Batch: 280-280542

**Method: 9056A
Preparation: N/A**

Lab Sample ID: 280-70279-6
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 06/05/2015 1155
 Prep Date: N/A
 Leach Date: N/A

Analysis Batch: 280-280542
 Prep Batch: N/A
 Leach Batch: N/A
 Units: mg/L

Instrument ID: WC_IonChrom8
 Lab File ID: 15.0000.d
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL
 25 uL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Chloride	20	20.0	0.2	10	
Sulfate	26	25.2	3	10	M

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-70279-1

Method Blank - Batch: 280-281711

Method: SM 2320B

Preparation: N/A

Lab Sample ID:	MB 280-281711/5	Analysis Batch:	280-281711	Instrument ID:	WC-AT3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	061215 alk.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	06/12/2015 1159	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
Alkalinity	3.2	U	1.1	5.0
Bicarbonate Alkalinity as CaCO3	3.2	U	1.1	5.0
Carbonate Alkalinity as CaCO3	3.2	U	1.1	5.0

Lab Control Sample - Batch: 280-281711

Method: SM 2320B

Preparation: N/A

Lab Sample ID:	LCS 280-281711/4	Analysis Batch:	280-281711	Instrument ID:	WC-AT3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	061215 alk.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	06/12/2015 1155	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Alkalinity	200	190	95	90 - 110	

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-70279-1

Method Blank - Batch: 280-280587

Method: SM 2540C
Preparation: N/A

Lab Sample ID: MB 280-280587/1	Analysis Batch: 280-280587	Instrument ID: WC_Cond_Orion
Client Matrix: Water	Prep Batch: N/A	Lab File ID: N/A
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 100 mL
Analysis Date: 06/05/2015 1421	Units: mg/L	Final Weight/Volume: 100 mL
Prep Date: N/A		
Leach Date: N/A		

Analyte	Result	Qual	DL	LOQ
Total Dissolved Solids (TDS)	10	U	4.7	10

Lab Control Sample - Batch: 280-280587

Method: SM 2540C
Preparation: N/A

Lab Sample ID: LCS 280-280587/2	Analysis Batch: 280-280587	Instrument ID: WC_Cond_Orion
Client Matrix: Water	Prep Batch: N/A	Lab File ID: N/A
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 100 mL
Analysis Date: 06/05/2015 1421	Units: mg/L	Final Weight/Volume: 100 mL
Prep Date: N/A		
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Dissolved Solids (TDS)	501	495	99	86 - 110	

DATA REPORTING QUALIFIERS

Client: GSI Environmental, Inc

Job Number: 280-70279-1

Lab Section	Qualifier	Description
GC/MS VOA		
	J	Estimated: The analyte was positively identified; the quantitation is an estimation
	M	Manual integrated compound.
	U	Undetected at the Limit of Detection.
Metals		
	J	Estimated: The analyte was positively identified; the quantitation is an estimation
	J	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
	D	The reported value is from a dilution.
	U	Undetected at the Limit of Detection.
General Chemistry		
	J	Estimated: The analyte was positively identified; the quantitation is an estimation
	M	Manual integrated compound.
	U	Undetected at the Limit of Detection.

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-70279-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:280-281058					
LCS 280-281058/4	Lab Control Sample	T	Water	8260B	
MB 280-281058/6	Method Blank	T	Water	8260B	
280-70279-2EB	54402-EB18-0615	T	Water	8260B	
280-70279-3	54400-MW43-0615	T	Water	8260B	
280-70279-4	54400-MW56-0615	T	Water	8260B	
280-70279-5	54400-MW55S-0615	T	Water	8260B	
280-70279-6	54400-MW55D-0615	T	Water	8260B	
Analysis Batch:280-281475					
LCS 280-281475/4	Lab Control Sample	T	Water	8260B	
MB 280-281475/6	Method Blank	T	Water	8260B	
280-70279-1TB	54403-TB19-0615	T	Water	8260B	

Report Basis

T = Total

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-70279-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-280888					
LCS 280-280888/2-A	Lab Control Sample	T	Water	3010A	
MB 280-280888/1-A	Method Blank	T	Water	3010A	
280-70279-6	54400-MW55D-0615	T	Water	3010A	
280-70279-6MS	Matrix Spike	T	Water	3010A	
280-70279-6MSD	Matrix Spike Duplicate	T	Water	3010A	
Prep Batch: 280-281106					
LCS 280-281106/2-A	Lab Control Sample	R	Water	3005A	
MB 280-281106/1-A	Method Blank	R	Water	3005A	
280-70279-6	54400-MW55D-0615	D	Water	3005A	
280-70279-6MS	Matrix Spike	D	Water	3005A	
280-70279-6MSD	Matrix Spike Duplicate	D	Water	3005A	
Analysis Batch:280-282103					
LCS 280-281106/2-A	Lab Control Sample	R	Water	6010C	280-281106
MB 280-281106/1-A	Method Blank	R	Water	6010C	280-281106
280-70279-6	54400-MW55D-0615	D	Water	6010C	280-281106
280-70279-6MS	Matrix Spike	D	Water	6010C	280-281106
280-70279-6MSD	Matrix Spike Duplicate	D	Water	6010C	280-281106
Analysis Batch:280-282271					
LCS 280-280888/2-A	Lab Control Sample	T	Water	6010C	280-280888
MB 280-280888/1-A	Method Blank	T	Water	6010C	280-280888
280-70279-6	54400-MW55D-0615	T	Water	6010C	280-280888
280-70279-6MS	Matrix Spike	T	Water	6010C	280-280888
280-70279-6MSD	Matrix Spike Duplicate	T	Water	6010C	280-280888

Report Basis

D = Dissolved

R = Total Recoverable

T = Total

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-70279-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-280541					
LCS 280-280541/4	Lab Control Sample	T	Water	9056	
LCSD 280-280541/5	Lab Control Sample Duplicate	T	Water	9056	
MB 280-280541/6	Method Blank	T	Water	9056	
280-70279-6	54400-MW55D-0615	T	Water	9056	
280-70279-6DU	Duplicate	T	Water	9056	
280-70279-6MS	Matrix Spike	T	Water	9056	
280-70279-6MSD	Matrix Spike Duplicate	T	Water	9056	
Analysis Batch:280-280542					
LCS 280-280542/4	Lab Control Sample	T	Water	9056A	
LCSD 280-280542/5	Lab Control Sample Duplicate	T	Water	9056A	
MB 280-280542/6	Method Blank	T	Water	9056A	
280-70279-6	54400-MW55D-0615	T	Water	9056A	
280-70279-6DU	Duplicate	T	Water	9056A	
280-70279-6MS	Matrix Spike	T	Water	9056A	
280-70279-6MSD	Matrix Spike Duplicate	T	Water	9056A	
Analysis Batch:280-280576					
LCS 280-280576/3	Lab Control Sample	T	Water	7196A	
LCSD 280-280576/4	Lab Control Sample Duplicate	T	Water	7196A	
MB 280-280576/5	Method Blank	T	Water	7196A	
280-70279-6	54400-MW55D-0615	T	Water	7196A	
280-70279-6DU	Duplicate	T	Water	7196A	
280-70279-6MS	Matrix Spike	T	Water	7196A	
280-70279-6MSD	Matrix Spike Duplicate	T	Water	7196A	
Analysis Batch:280-280587					
LCS 280-280587/2	Lab Control Sample	T	Water	SM 2540C	
MB 280-280587/1	Method Blank	T	Water	SM 2540C	
280-70279-6	54400-MW55D-0615	T	Water	SM 2540C	
Analysis Batch:280-281711					
LCS 280-281711/4	Lab Control Sample	T	Water	SM 2320B	
MB 280-281711/5	Method Blank	T	Water	SM 2320B	
280-70279-6	54400-MW55D-0615	T	Water	SM 2320B	

Report Basis

T = Total

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-70279-1

Laboratory Chronicle

Lab ID: 280-70279-1

Client ID: 54403-TB19-0615

Sample Date/Time: 06/04/2015 09:00 Received Date/Time: 06/05/2015 07:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-70279-B-1		280-281475		06/12/2015 05:45	1	TAL DEN	BBB
A:8260B	280-70279-B-1		280-281475		06/12/2015 05:45	1	TAL DEN	BBB

Lab ID: 280-70279-2

Client ID: 54402-EB18-0615

Sample Date/Time: 06/04/2015 09:25 Received Date/Time: 06/05/2015 07:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-70279-A-2		280-281058		06/09/2015 21:19	1	TAL DEN	BBB
A:8260B	280-70279-A-2		280-281058		06/09/2015 21:19	1	TAL DEN	BBB

Lab ID: 280-70279-3

Client ID: 54400-MW43-0615

Sample Date/Time: 06/04/2015 09:15 Received Date/Time: 06/05/2015 07:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-70279-A-3		280-281058		06/09/2015 21:42	1	TAL DEN	BBB
A:8260B	280-70279-A-3		280-281058		06/09/2015 21:42	1	TAL DEN	BBB

Lab ID: 280-70279-4

Client ID: 54400-MW56-0615

Sample Date/Time: 06/04/2015 11:55 Received Date/Time: 06/05/2015 07:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-70279-A-4		280-281058		06/09/2015 22:05	1	TAL DEN	BBB
A:8260B	280-70279-A-4		280-281058		06/09/2015 22:05	1	TAL DEN	BBB

Lab ID: 280-70279-5

Client ID: 54400-MW55S-0615

Sample Date/Time: 06/04/2015 14:05 Received Date/Time: 06/05/2015 07:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-70279-A-5		280-281058		06/09/2015 22:27	1	TAL DEN	BBB
A:8260B	280-70279-A-5		280-281058		06/09/2015 22:27	1	TAL DEN	BBB

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-70279-1

Laboratory Chronicle

Lab ID: 280-70279-6

Client ID: 54400-MW55D-0615

Sample Date/Time: 06/04/2015 15:10 Received Date/Time: 06/05/2015 07:00

Method	Bottle ID	Run	Analysis		Date Prepared /		Dil	Lab	Analyst
			Batch	Prep Batch	AnalYZed				
P:5030B	280-70279-H-6		280-281058		06/09/2015	22:50	1	TAL DEN	BBB
A:8260B	280-70279-H-6		280-281058		06/09/2015	22:50	1	TAL DEN	BBB
P:3005A	280-70279-C-6-A		280-282103	280-281106	06/12/2015	09:00	1	TAL DEN	SUR
A:6010C	280-70279-C-6-A		280-282103	280-281106	06/15/2015	15:55	1	TAL DEN	LLB
P:3010A	280-70279-B-6-A		280-282271	280-280888	06/10/2015	14:45	1	TAL DEN	MLS
A:6010C	280-70279-B-6-A		280-282271	280-280888	06/16/2015	19:30	1	TAL DEN	SJS
A:7196A	280-70279-A-6		280-280576		06/05/2015	11:39	1	TAL DEN	CCJ
A:9056	280-70279-A-6		280-280541		06/05/2015	11:38	1	TAL DEN	TLP
A:9056A	280-70279-A-6		280-280542		06/05/2015	11:38	1	TAL DEN	TLP
A:SM 2320B	280-70279-D-6		280-281711		06/12/2015	13:38	1	TAL DEN	CCJ
A:SM 2540C	280-70279-A-6		280-280587		06/05/2015	14:21	1	TAL DEN	SVC

Lab ID: 280-70279-6 MS

Client ID: 54400-MW55D-0615

Sample Date/Time: 06/04/2015 15:10 Received Date/Time: 06/05/2015 07:00

Method	Bottle ID	Run	Analysis		Date Prepared /		Dil	Lab	Analyst
			Batch	Prep Batch	AnalYZed				
P:3005A	280-70279-C-6-B MS		280-282103	280-281106	06/12/2015	09:00	1	TAL DEN	SUR
A:6010C	280-70279-C-6-B MS		280-282103	280-281106	06/15/2015	16:00	1	TAL DEN	LLB
P:3010A	280-70279-B-6-B MS		280-282271	280-280888	06/10/2015	14:45	1	TAL DEN	MLS
A:6010C	280-70279-B-6-B MS		280-282271	280-280888	06/16/2015	19:35	1	TAL DEN	SJS
A:7196A	280-70279-A-6 MS		280-280576		06/05/2015	11:39	1	TAL DEN	CCJ
A:9056	280-70279-A-6 MS		280-280541		06/05/2015	12:12	1	TAL DEN	TLP
A:9056A	280-70279-A-6 MS		280-280542		06/05/2015	12:12	1	TAL DEN	TLP

Lab ID: 280-70279-6 MSD

Client ID: 54400-MW55D-0615

Sample Date/Time: 06/04/2015 15:10 Received Date/Time: 06/05/2015 07:00

Method	Bottle ID	Run	Analysis		Date Prepared /		Dil	Lab	Analyst
			Batch	Prep Batch	AnalYZed				
P:3005A	280-70279-C-6-C MSD		280-282103	280-281106	06/12/2015	09:00	1	TAL DEN	SUR
A:6010C	280-70279-C-6-C MSD		280-282103	280-281106	06/15/2015	16:03	1	TAL DEN	LLB
P:3010A	280-70279-B-6-C MSD		280-282271	280-280888	06/10/2015	14:45	1	TAL DEN	MLS
A:6010C	280-70279-B-6-C MSD		280-282271	280-280888	06/16/2015	19:38	1	TAL DEN	SJS
A:7196A	280-70279-A-6 MSD		280-280576		06/05/2015	11:39	1	TAL DEN	CCJ
A:9056	280-70279-A-6 MSD		280-280541		06/05/2015	12:29	1	TAL DEN	TLP
A:9056A	280-70279-A-6 MSD		280-280542		06/05/2015	12:29	1	TAL DEN	TLP

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-70279-1

Laboratory Chronicle

Lab ID: 280-70279-6 DU

Client ID: 54400-MW55D-0615

Sample Date/Time: 06/04/2015 15:10 Received Date/Time: 06/05/2015 07:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:7196A	280-70279-A-6 DU		280-280576		06/05/2015 11:39	1	TAL DEN	CCJ
A:9056	280-70279-A-6 DU		280-280541		06/05/2015 11:55	1	TAL DEN	TLP
A:9056A	280-70279-A-6 DU		280-280542		06/05/2015 11:55	1	TAL DEN	TLP

Lab ID: 280-70279-6 SD

Client ID: 54400-MW55D-0615

Sample Date/Time: 06/04/2015 15:10 Received Date/Time: 06/05/2015 07:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3005A	280-70279-C-6-A SD ^5		280-282103	280-281106	06/12/2015 09:00	5	TAL DEN	SUR
A:6010C	280-70279-C-6-A SD ^5		280-282103	280-281106	06/15/2015 15:58	5	TAL DEN	LLB
P:3005A	280-70279-C-6-A PDS		280-282103	280-281106	06/12/2015 09:00	1	TAL DEN	SUR
A:6010C	280-70279-C-6-A PDS		280-282103	280-281106	06/15/2015 16:05	1	TAL DEN	LLB
P:3010A	280-70279-B-6-A SD ^5		280-282271	280-280888	06/10/2015 14:45	5	TAL DEN	MLS
A:6010C	280-70279-B-6-A SD ^5		280-282271	280-280888	06/16/2015 19:33	5	TAL DEN	SJS
P:3010A	280-70279-B-6-A PDS		280-282271	280-280888	06/10/2015 14:45	1	TAL DEN	MLS
A:6010C	280-70279-B-6-A PDS		280-282271	280-280888	06/16/2015 19:40	1	TAL DEN	SJS

Lab ID: MB

Client ID: N/A

Sample Date/Time: N/A

Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	MB 280-281058/6		280-281058		06/09/2015 18:56	1	TAL DEN	BBB
A:8260B	MB 280-281058/6		280-281058		06/09/2015 18:56	1	TAL DEN	BBB
P:5030B	MB 280-281475/6		280-281475		06/11/2015 20:35	1	TAL DEN	BBB
A:8260B	MB 280-281475/6		280-281475		06/11/2015 20:35	1	TAL DEN	BBB
P:3005A	MB 280-281106/1-A		280-282103	280-281106	06/12/2015 09:00	1	TAL DEN	SUR
A:6010C	MB 280-281106/1-A		280-282103	280-281106	06/15/2015 15:50	1	TAL DEN	LLB
P:3010A	MB 280-280888/1-A		280-282271	280-280888	06/10/2015 14:45	1	TAL DEN	MLS
A:6010C	MB 280-280888/1-A		280-282271	280-280888	06/16/2015 19:22	1	TAL DEN	SJS
A:7196A	MB 280-280576/5		280-280576		06/05/2015 11:39	1	TAL DEN	CCJ
A:9056	MB 280-280541/6		280-280541		06/05/2015 11:21	1	TAL DEN	TLP
A:9056A	MB 280-280542/6		280-280542		06/05/2015 11:21	1	TAL DEN	TLP
A:SM 2320B	MB 280-281711/5		280-281711		06/12/2015 11:59	1	TAL DEN	CCJ
A:SM 2540C	MB 280-280587/1		280-280587		06/05/2015 14:21	1	TAL DEN	SVC

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-70279-1

Laboratory Chronicle

Lab ID: LCS

Client ID: N/A

Sample Date/Time: N/A

Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	LCS 280-281058/4		280-281058		06/09/2015 19:19	1	TAL DEN	BBB
A:8260B	LCS 280-281058/4		280-281058		06/09/2015 19:19	1	TAL DEN	BBB
P:5030B	LCS 280-281475/4		280-281475		06/11/2015 19:50	1	TAL DEN	BBB
A:8260B	LCS 280-281475/4		280-281475		06/11/2015 19:50	1	TAL DEN	BBB
P:3005A	LCS 280-281106/2-A		280-282103	280-281106	06/12/2015 09:00	1	TAL DEN	SUR
A:6010C	LCS 280-281106/2-A		280-282103	280-281106	06/15/2015 15:53	1	TAL DEN	LLB
P:3010A	LCS 280-280888/2-A		280-282271	280-280888	06/10/2015 14:45	1	TAL DEN	MLS
A:6010C	LCS 280-280888/2-A		280-282271	280-280888	06/16/2015 19:28	1	TAL DEN	SJS
A:7196A	LCS 280-280576/3		280-280576		06/05/2015 11:39	1	TAL DEN	CCJ
A:9056	LCS 280-280541/4		280-280541		06/05/2015 10:48	1	TAL DEN	TLP
A:9056A	LCS 280-280542/4		280-280542		06/05/2015 10:48	1	TAL DEN	TLP
A:SM 2320B	LCS 280-281711/4		280-281711		06/12/2015 11:55	1	TAL DEN	CCJ
A:SM 2540C	LCS 280-280587/2		280-280587		06/05/2015 14:21	1	TAL DEN	SVC

Lab ID: LCSD

Client ID: N/A

Sample Date/Time: N/A

Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:7196A	LCSD 280-280576/4		280-280576		06/05/2015 11:39	1	TAL DEN	CCJ
A:9056	LCSD 280-280541/5		280-280541		06/05/2015 11:04	1	TAL DEN	TLP
A:9056A	LCSD 280-280542/5		280-280542		06/05/2015 11:04	1	TAL DEN	TLP

Lab ID: MRL

Client ID: N/A

Sample Date/Time: N/A

Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:9056	MRL 280-280541/3		280-280541		06/05/2015 10:31	1	TAL DEN	TLP
A:9056A	MRL 280-280542/3		280-280542		06/05/2015 10:31	1	TAL DEN	TLP

Lab References:

TAL DEN = TestAmerica Denver

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-70279-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
Alk daily lcs_00476	06/19/15	06/12/15	Di Water, Lot na	1000 mL	Alk stk std_00008	4 mL	Alkalinity	200 mg/L
.Alk stk std_00008	06/30/15		Fisher, Lot 133281		(Purchased Reagent)		Alkalinity	50 g/L
CR6 ICV int_00907	06/06/15	06/05/15	Di Water, Lot na	100 mL	Cr6 ICV Std_00015	0.1 mL	Chromium, hexavalent	1 mg/L
.Cr6 ICV Std_00015	06/30/18		Hach, Lot A3176		(Purchased Reagent)		Chromium, hexavalent	1000 mg/L
CR6 Int cal_00598	06/05/15	06/04/15	Di Water, Lot na	100 mL	CR6 Cal std_00006	0.1 mL	Chromium, hexavalent	1 mg/L
.CR6 Cal std_00006	03/01/18		ERA, Lot 290315		(Purchased Reagent)		Chromium, hexavalent	1000 mg/L
CR6 spike sou_00521	06/06/15	06/05/15	Di Water, Lot na	100 mL	CR6 Cal std_00006	1 mL	Chromium, hexavalent	10 mg/L
.CR6 Cal std_00006	03/01/18		ERA, Lot 290315		(Purchased Reagent)		Chromium, hexavalent	1000 mg/L
IC CAL cl/so4_00047	05/18/15	05/11/15	Di Water, Lot na	100 mL	IC CL cal_00029	25 mL	Chloride	250 mg/L
					IC sulfatecal 00027	25 mL	Sulfate	250 mg/L
.IC CL cal_00029	04/30/16		Ricca, Lot 1410937		(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00027	04/30/16		RICCA, Lot 1410971		(Purchased Reagent)		Sulfate	1000 mg/L
IC CAL cl/so4_00051	06/11/15	06/04/15	Di Water, Lot na	100 mL	IC CL cal_00032	25 mL	Chloride	250 mg/L
					IC sulfatecal 00029	25 mL	Sulfate	250 mg/L
.IC CL cal_00032	08/31/16		Ricca, Lot 1503977		(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00029	07/30/16		RICCA, Lot 1502814		(Purchased Reagent)		Sulfate	1000 mg/L
IC Cal low_00085	05/19/15	05/12/15	Di Water, Lot NA	100 mL	IC Br cal_00009	5 mL	Bromide	50 mg/L
					IC FL cal_00008	5 mL	Fluoride	50 mg/L
					IC N02 CAL_00034	5 mL	Nitrite as N	50 mg/L
					IC N03 cal_00011	5 mL	Nitrate as N	50 mg/L
					IC P04 cal_00010	5 mL	Orthophosphate as P	50 mg/L
.IC Br cal_00009	07/31/15		Ricca, Lot 4402289		(Purchased Reagent)		Bromide	1000 mg/L
.IC FL cal_00008	11/30/15		Ricca, Lot 4405502		(Purchased Reagent)		Fluoride	1000 mg/L
.IC N02 CAL_00034	09/30/15		RICCA, Lot 2503729		(Purchased Reagent)		Nitrite as N	1000 ppm
.IC N03 cal_00011	11/30/15		Ricca, Lot 2406477		(Purchased Reagent)		Nitrate as N	1000 mg/L
.IC P04 cal_00010	04/30/16		Ricca, Lot 4405320		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
IC Cal low_00092	06/11/15	06/04/15	Di Water, Lot NA	100 mL	IC N02 CAL_00034	5 mL	Nitrite as N	50 mg/L
					IC N03 cal_00011	5 mL	Nitrate as N	50 mg/L
.IC N02 CAL_00034	09/30/15		RICCA, Lot 2503729		(Purchased Reagent)		Nitrite as N	1000 ppm
.IC N03 cal_00011	11/30/15		Ricca, Lot 2406477		(Purchased Reagent)		Nitrate as N	1000 mg/L
IC CL ICV_00010	09/17/16		LAB CHEM, Lot D255-04		(Purchased Reagent)		Chloride	1000 mg/L
IC ICV 5_00080	06/09/15	06/02/15	Di Water, Lot na	10 mL	IC N02 ICV_00010	0.5 mL	Nitrite as N	50 mg/L
					IC N03 ICV_00006	0.5 mL	Nitrate as N	50 mg/L
.IC N02 ICV_00010	01/31/17		ERA, Lot 030115		(Purchased Reagent)		Nitrite as N	1000 mg/L
.IC N03 ICV_00006	06/17/15		LAB CHEM, Lot C163-25		(Purchased Reagent)		Nitrate as N	1000 mg/L
IC LCS_00279	06/06/15	06/05/15	Di Water, Lot na	200 mL	IC Cal low_00092	20 mL	Nitrite as N	5 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Nitrate as N	5 mg/L
					IC CL cal_00032	20 mL	Chloride	100 mg/L
					IC sulfatecal 00029	20 mL	Sulfate	100 mg/L
.IC Cal low_00092	06/11/15	06/04/15	Di Water, Lot NA	100 mL	IC N02 CAL_00034	5 mL	Nitrite as N	50 mg/L
					IC N03 cal_00011	5 mL	Nitrate as N	50 mg/L
..IC N02 CAL_00034	09/30/15		RICCA, Lot 2503729		(Purchased Reagent)		Nitrite as N	1000 ppm
..IC N03 cal_00011	11/30/15		Ricca, Lot 2406477		(Purchased Reagent)		Nitrate as N	1000 mg/L
.IC CL cal_00032	08/31/16		Ricca, Lot 1503977		(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00029	07/30/16		RICCA, Lot 1502814		(Purchased Reagent)		Sulfate	1000 mg/L
IC SO4 ICV_00014	12/18/16		LabChem, Lot D350-18		(Purchased Reagent)		Sulfate	1000 mg/L
ICMS/MSD WEEK_00323	06/10/15	06/03/15	Di Water, Lot NA	10 mL	IC SPK 6 ANIO_00016	5 mL	Chloride	2499.92 mg/L
							Nitrate as N	499.995 mg/L
							Sulfate	2500.26 mg/L
					IC SPK N02SOL 00008	5 mL	Nitrite as N	499.973 mg/L
.IC SPK 6 ANIO_00016	02/03/16	02/03/15	Di Water, Lot NA	1000 mL	IC MS/MSD CL_00002	8.2424 g	Chloride	4999.84 mg/L
					IC MS/MSD N03 00003	6.0679 g	Nitrate as N	999.99 mg/L
					IC MS/MSD S04 00004	9.0704 g	Sulfate	5000.51 mg/L
..IC MS/MSD CL_00002	01/13/21		FISHER, Lot 091363		(Purchased Reagent)		Chloride	0.6066 g/g
..IC MS/MSD N03_00003	10/02/16		FISHER, Lot 035600		(Purchased Reagent)		Nitrate as N	0.1648 g/g
..IC MS/MSD S04_00004	01/31/19		Fisher, Lot 138741		(Purchased Reagent)		Sulfate	0.5513 g/g
.IC SPK N02SOL_00008	12/30/15	12/30/14	Di Water, Lot na	500 mL	IC MS/MSD N02 00001	2.4628 g	Nitrite as N	999.946 mg/L
..IC MS/MSD N02_00001	06/09/17		fisher, Lot 041304		(Purchased Reagent)		Nitrite as N	0.20301 g/g
ICP CCV_00044	09/01/15	06/14/15	5%/5% HCL/HNO3, Lot SEE LOGBOOK	500 mL	ICP ICAL1A_00509	250 mL	Iron	2.5 mg/L
.ICP ICAL1A_00509	09/01/15	06/13/15	5%/5% HCL/HNO3, Lot SEE LOGBOOK	500 mL	Icp cal std 3 00010	5 mL	Iron	5 mg/L
..Icp cal std 3_00010	04/01/16		Inorganic Ventures, Lot H2-MEB541066		(Purchased Reagent)		Iron	500 mg/L
ICP CCV_00045	01/01/16	06/16/15	5%/5% HCL/HNO3, Lot SEE LOGBOOK	500 mL	ICP ICAL1A_00510	250 mL	Calcium	5 mg/L
							Iron	2.5 mg/L
							Magnesium	20 mg/L
							Potassium	50 mg/L
							Sodium	5 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-70279-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.ICP ICAL1A_00510	01/01/16	06/16/15	5%/5% HCL/HNO3, Lot SEE LOGBOOK	500 mL	Icp cal std 3_00010	5 mL	Calcium	10 mg/L
							Iron	5 mg/L
							Magnesium	40 mg/L
							Potassium	100 mg/L
							Sodium	10 mg/L
..Icp cal std 3_00010	04/01/16	Inorganic Ventures, Lot H2-MEB541066			(Purchased Reagent)		Calcium	1000 mg/L
							Iron	500 mg/L
							Magnesium	4000 mg/L
							Potassium	10000 mg/L
							Sodium	1000 mg/L
ICP CCVH_00397	09/01/15	06/10/15	5%/5% HCL/HNO3, Lot SEE LOGBOOK	500 mL	ICP ICAL2A_00303	250 mL	Iron	50 mg/L
.ICP ICAL2A_00303	09/01/15	06/10/15	5%HCl/5% HNO3, Lot see reagent log	1000 mL	10000 Fe_00012	10 mL	Iron	100 mg/L
..10000 Fe_00012	11/01/15	Inorganic Ventures, Lot g2-fe04033			(Purchased Reagent)		Iron	10000 mg/L
ICP CCVH_00398	09/01/15	06/15/15	5%/5% HCL/HNO3, Lot SEE LOGBOOK	500 mL	ICP ICAL2A_00304	250 mL	Iron	50 mg/L
							Sodium	250 mg/L
.ICP ICAL2A_00304	09/01/15	06/15/15	5%HCl/5% HNO3, Lot see reagent log	1000 mL	10000 Fe_00012	10 mL	Iron	100 mg/L
					10000 Na_00040	50 mL	Sodium	500 mg/L
..10000 Fe_00012	11/01/15	Inorganic Ventures, Lot g2-fe04033			(Purchased Reagent)		Iron	10000 mg/L
..10000 Na_00040	01/09/17	Inorganic Ventures, Lot G2-NA03115			(Purchased Reagent)		Sodium	10000 mg/L
ICP CRI_00103	06/16/15	06/15/15	5:HNO3/5%HCl, Lot see reagent log	100 mL	ICP RL STD3A_00008	0.1 mL	Iron	0.03 mg/L
.ICP RL STD3A_00008	08/01/15	Inorganic Ventures, Lot h2-meb536076			(Purchased Reagent)		Iron	30 mg/L
ICP CRI_00104	06/17/15	06/16/15	5:HNO3/5%HCl, Lot see reagent log	100 mL	ICP RL STD3A_00008	0.1 mL	Calcium	0.2 mg/L
							Iron	0.03 mg/L
							Magnesium	0.2 mg/L
							Potassium	1 mg/L
							Sodium	1 mg/L
.ICP RL STD3A_00008	08/01/15	Inorganic Ventures, Lot h2-meb536076			(Purchased Reagent)		Calcium	200 mg/L
							Iron	30 mg/L
							Magnesium	200 mg/L
							Potassium	1000 mg/L
							Sodium	1000 mg/L
ICP ICSA_00105	01/01/16	06/02/15	5%/5% HCL/HNO3, Lot SEE LOGBOOK	250 mL	Icp stk ICSA_00012	25 mL	Al	500 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Calcium	500 mg/L
							Iron	200 mg/L
							Magnesium	500 mg/L
.Icp stk ICSA_00012	01/01/16		Inorganic Ventures, Lot H2-MEB525068		(Purchased Reagent)		Al	5000 mg/L
							Calcium	5000 mg/L
							Iron	2000 mg/L
							Magnesium	5000 mg/L
ICP ICSAB_00109	06/30/15	05/22/15	5%/5% HCL/HNO3, Lot SEE LOGBOOK	250 mL	1000 Tl_00010	2.5 mL	Tl	10 mg/L
					10000 Si_00011	0.25 mL	Si	10 mg/L
					ANALYTES B_00008	2.5 mL	Ag	1 mg/L
							Ba	0.5 mg/L
							Be	0.5 mg/L
							Cd	1 mg/L
							Co	0.5 mg/L
							Cr	0.5 mg/L
							Cu	0.5 mg/L
							Mn	0.5 mg/L
							Ni	1 mg/L
							Pb	1 mg/L
							V	0.5 mg/L
							Zn	1 mg/L
							ICP ISAB STD1_00006	2.5 mL	As	2 mg/L
					B	2 mg/L		
					Li	1 mg/L		
					Mo	1 mg/L		
					Potassium	50 mg/L		
					Sb	1 mg/L		
Se	5 mg/L							
ICP ISAB STD2_00006	2.5 mL	Sn	10 mg/L					
		Ti	1 mg/L					
		Icp stk ICSA_00012	25 mL	Al	500 mg/L			
Calcium	500 mg/L							
Iron	200 mg/L							
Magnesium	500 mg/L							
.1000 Tl_00010	11/20/17		Inorganic Ventures, Lot H2-TL02003R		(Purchased Reagent)		Tl	1000 mg/L
.10000 Si_00011	03/12/16		Inorganic ventures, Lot h2-si03035		(Purchased Reagent)		Si	10000 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-70279-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration		
					Reagent ID	Volume Added				
.ANALYTES B_00008	06/30/15		SPEX, Lot 9-164ppy			(Purchased Reagent)	Ag	100 mg/L		
							Ba	50 mg/L		
							Be	50 mg/L		
							Cd	100 mg/L		
							Co	50 mg/L		
							Cr	50 mg/L		
							Cu	50 mg/L		
							Mn	50 mg/L		
							Ni	100 mg/L		
							Pb	100 mg/L		
							V	50 mg/L		
Zn	100 mg/L									
.ICP ISAB STD1_00006	09/20/15		High Purity, Lot 1407732			(Purchased Reagent)	As	200 mg/L		
							B	200 mg/L		
							Li	100 mg/L		
							Mo	100 mg/L		
							Potassium	5000 mg/L		
							Sb	100 mg/L		
							Se	500 mg/L		
							Sodium	5000 mg/L		
							Sr	100 mg/L		
.ICP ISAB STD2_00006	09/20/15		High Purity, Lot 1407733			(Purchased Reagent)	Sn	1000 mg/L		
							Ti	100 mg/L		
.Icp stk ICSA_00012	01/01/16		Inorganic Ventures, Lot H2-MEB525068			(Purchased Reagent)	Al	5000 mg/L		
							Calcium	5000 mg/L		
							Iron	2000 mg/L		
ICP ICSAB_00110	09/20/15	06/12/15	5%/5% HCL/HNO3, Lot SEE LOGBOOK	250 mL	1000 Tl_00010	2.5 mL	Tl	10 mg/L		
							10000 Si_00011	0.25 mL	Si	10 mg/L
									SiO2	21.4 mg/L
					ANALYTES B_00009	2.5 mL	Ag	1 mg/L		
							Ba	0.5 mg/L		
							Be	0.5 mg/L		
							Cd	1 mg/L		
							Co	0.5 mg/L		
							Cr	0.5 mg/L		
							Cu	0.5 mg/L		
							Mn	0.5 mg/L		
							Ni	1 mg/L		
							Pb	1 mg/L		

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration							
					Reagent ID	Volume Added									
							V	0.5 mg/L							
							Zn	1 mg/L							
							ICP ISAB STD1_00006	2.5 mL	As	2 mg/L					
									B	2 mg/L					
									Li	1 mg/L					
									Mo	1 mg/L					
									Potassium	50 mg/L					
									Sb	1 mg/L					
									Se	5 mg/L					
									Sodium	50 mg/L					
									Sr	1 mg/L					
									Sn	10 mg/L					
							ICP ISAB STD2_00006	2.5 mL	Ti	1 mg/L					
									Icp stk ICSA_00012	25 mL	Al	500 mg/L			
Calcium	500 mg/L														
Iron	200 mg/L														
							Magnesium	500 mg/L							
.1000 Tl_00010	11/20/17		Inorganic Ventures, Lot H2-TL02003R		(Purchased Reagent)		Tl	1000 mg/L							
.10000 Si_00011	03/12/16		Inorganic ventures, Lot h2-si03035		(Purchased Reagent)		Si	10000 mg/L							
							SiO2	21400 mg/L							
.ANALYTES B_00009	05/20/16		SPEX, Lot 9-164ypy		(Purchased Reagent)		Ag	100 mg/L							
							Ba	50 mg/L							
							Be	50 mg/L							
							Cd	100 mg/L							
							Co	50 mg/L							
							Cr	50 mg/L							
							Cu	50 mg/L							
							Mn	50 mg/L							
							Ni	100 mg/L							
							Pb	100 mg/L							
							V	50 mg/L							
							Zn	100 mg/L							
							.ICP ISAB STD1_00006	09/20/15		High Purity, Lot 1407732		(Purchased Reagent)		As	200 mg/L
														B	200 mg/L
Li	100 mg/L														
Mo	100 mg/L														
Potassium	5000 mg/L														
Sb	100 mg/L														
Se	500 mg/L														

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Sodium	5000 mg/L
							Sr	100 mg/L
.ICP ISAB STD2_00006	09/20/15		High Purity, Lot 1407733		(Purchased Reagent)		Sn	1000 mg/L
							Ti	100 mg/L
.Icp stk ICSA_00012	01/01/16		Inorganic Ventures, Lot H2-MEB525068		(Purchased Reagent)		Al	5000 mg/L
							Calcium	5000 mg/L
							Iron	2000 mg/L
							Magnesium	5000 mg/L
ICP ICV_00034	11/05/15	06/11/15	5%/5% HCL/HNO3, Lot SEE LOGBOOK	100 mL	Icp ICVL A_00008	1 mL	Iron	0.25 mg/L
.Icp ICVL A_00008	11/05/15		High Purity, Lot 1430702		(Purchased Reagent)		Iron	25 mg/L
ICP ICV_00035	11/05/15	06/16/15	5%/5% HCL/HNO3, Lot SEE LOGBOOK	100 mL	Icp ICVL A_00008	1 mL	Calcium	2 mg/L
							Iron	0.25 mg/L
							Magnesium	10 mg/L
							Potassium	20 mg/L
							Sodium	2 mg/L
.Icp ICVL A_00008	11/05/15		High Purity, Lot 1430702		(Purchased Reagent)		Calcium	200 mg/L
							Iron	25 mg/L
							Magnesium	1000 mg/L
							Potassium	2000 mg/L
							Sodium	200 mg/L
ICP ICVH_00225	07/06/15	06/11/15	5%/5% HCL/HNO3, Lot SEE LOGBOOK	100 mL	Icp ICVH_00163	1 mL	Iron	80 mg/L
							Sodium	40 mg/L
.Icp ICVH_00163	08/07/15		High Purity, Lot 1421732		(Purchased Reagent)		Iron	8000 mg/L
							Sodium	4000 mg/L
ICP LLCCV_01486	06/16/15	06/15/15	5%/5% HCL/HNO3, Lot SEE LOGBOOK	100 mL	ICP LLCCV-1_00025	1 mL	Calcium	0.2 mg/L
							Iron	0.1 mg/L
							Magnesium	0.2 mg/L
							Potassium	3 mg/L
							Sodium	1 mg/L
.ICP LLCCV-1_00025	12/01/15		Inorganic Ventures, Lot H2-MEB534141		(Purchased Reagent)		Calcium	20 mg/L
							Iron	10 mg/L
							Magnesium	20 mg/L
							Potassium	300 mg/L
							Sodium	100 mg/L
ICP LLCCV_01487	06/17/15	06/16/15	5%/5% HCL/HNO3, Lot SEE LOGBOOK	100 mL	ICP LLCCV-1_00025	1 mL	Calcium	0.2 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Iron	0.1 mg/L
							Magnesium	0.2 mg/L
							Potassium	3 mg/L
							Sodium	1 mg/L
.ICP LLCCV-1_00025	12/01/15		Inorganic Ventures, Lot H2-MEB534141			(Purchased Reagent)	Calcium	20 mg/L
							Iron	10 mg/L
							Magnesium	20 mg/L
							Potassium	300 mg/L
							Sodium	100 mg/L
ICP PDS 1_00010	01/01/16		Inorganic Ventures, Lot H2-MEB546062			(Purchased Reagent)	Calcium	2000 mg/L
							Iron	100 mg/L
							Magnesium	2000 mg/L
							Potassium	2000 mg/L
							Sodium	2000 mg/L
ICP SPK 2B_00025	06/01/16		Inorganic Ventures, Lot H2-MEB546154			(Purchased Reagent)	B	100 mg/L
							Mo	100 mg/L
							Sb	50 mg/L
							Si	1000 mg/L
							SiO2	2140 mg/L
							Sn	200 mg/L
							Sulfur	200 mg/L
							Ti	100 mg/L
							Zr	50 mg/L
ICP SPK 3A_00097	06/01/16		Inorganic Ventures, Lot H2-MEB571140			(Purchased Reagent)	Ag	5 mg/L
							Al	200 mg/L
							As	100 mg/L
							Ba	200 mg/L
							Be	5 mg/L
							Bi	200 mg/L
							Calcium	5000 mg/L
							Cd	10 mg/L
							Co	50 mg/L
							Cr	20 mg/L
							Cu	25 mg/L
							Iron	100 mg/L
							Li	100 mg/L
							Magnesium	5000 mg/L
							Mn	50 mg/L
							Ni	50 mg/L
							P	1000 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-70279-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pb	50 mg/L
							Potassium	5000 mg/L
							Se	200 mg/L
							Sodium	5000 mg/L
							Sr	100 mg/L
							Th	100 mg/L
							Tl	200 mg/L
							U	200 mg/L
							V	50 mg/L
							Zn	50 mg/L
MV-2cleve+AVA_00009	05/31/15	03/02/15	P&T Methanol, Lot 85233	20 mL	MV-567643_00008	400 uL	2-Chloroethyl vinyl ether	40 ug/mL
					MV-568720_00006	405 uL	Acrolein	399.938 ug/mL
					MV-569724_00001	320 uL	Vinyl acetate	80 ug/mL
.MV-567643_00008	02/29/16		RESTEK, Lot A093368		(Purchased Reagent)		2-Chloroethyl vinyl ether	2000 ug/mL
.MV-568720_00006	05/31/15		RESTEK, Lot A0108734		(Purchased Reagent)		Acrolein	19750 ug/mL
.MV-569724_00001	07/31/15		RESTEK, Lot A0108225		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
MV-2cleve+AVA_00010	07/31/15	06/01/15	P&T Methanol, Lot 85233	20 mL	MV-567643_00009	400 uL	2-Chloroethyl vinyl ether	40 ug/mL
					MV-568720_00007	405 uL	Acrolein	399.938 ug/mL
					MV-569724_00001	320 uL	Vinyl acetate	80 ug/mL
.MV-567643_00009	02/29/16		RESTEK, Lot A093368		(Purchased Reagent)		2-Chloroethyl vinyl ether	2000 ug/mL
.MV-568720_00007	07/31/15		RESTEK, Lot A0109948		(Purchased Reagent)		Acrolein	19750 ug/mL
.MV-569724_00001	07/31/15		RESTEK, Lot A0108225		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
MV-567649-D_00001	02/28/18		RESTEK, Lot A093504		(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene	250 ug/mL
							TBA-d9 (IS)	5000 ug/mL
MV-568718-D_00002	12/31/18		RESTEK, Lot A099955		(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene	250 ug/mL
							TBA-d9 (IS)	5000 ug/mL
MV-ARCH SS A_00042	09/30/15	03/30/15	P&T Methanol, Lot 85233	50 mL	MV-567650_00020	5 mL	1,2-Dichloroethane-d4 (Surr)	250 ug/mL
							4-Bromofluorobenzene (Surr)	250 ug/mL
							Dibromofluoromethane (Surr)	250 ug/mL
							Toluene-d8 (Surr)	250 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.MV-567650_00020	08/31/19		Restek, Lot A0105143			(Purchased Reagent)	1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
MV-ARCH SS A_00047	11/12/15	05/12/15	P&T Methanol, Lot 85233	50 mL	MV-567650_00020	5 mL	1,2-Dichloroethane-d4 (Surr)	250 ug/mL
							4-Bromofluorobenzene (Surr)	250 ug/mL
							Dibromofluoromethane (Surr)	250 ug/mL
							Toluene-d8 (Surr)	250 ug/mL
.MV-567650_00020	08/31/19		Restek, Lot A0105143			(Purchased Reagent)	1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
MV-Gas/Ket A_00033	11/14/15	05/14/15	P&T Methanol, Lot 85233	10 mL	MV-567642_00018	160 uL	2-Butanone (MEK)	160 ug/mL
							2-Hexanone	160 ug/mL
							4-Methyl-2-pentanone (MIBK)	160 ug/mL
							Acetone	160 ug/mL
					MV-567645_00019	200 uL	Bromomethane	40 ug/mL
							Chloroethane	40 ug/mL
							Chloromethane	40 ug/mL
							Dichlorodifluoromethane	40 ug/mL
					MV-567648_00029	800 uL	Dichlorofluoromethane	40 ug/mL
							Trichlorofluoromethane	40 ug/mL
							Vinyl chloride	40 ug/mL
							Cyclohexanone	1600 ug/mL
.MV-567642_00018	02/29/16		RESTEK, Lot A093365			(Purchased Reagent)	2-Butanone (MEK)	10000 ug/mL
							2-Hexanone	10000 ug/mL
							4-Methyl-2-pentanone (MIBK)	10000 ug/mL
							Acetone	10000 ug/mL
.MV-567645_00019	09/30/16		RESTEK, Lot A0105755			(Purchased Reagent)	Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Dichlorodifluoromethane	2000 ug/mL
							Dichlorofluoromethane	2000 ug/mL
							Trichlorofluoromethane	2000 ug/mL
.MV-567648_00029	12/31/17		RESTEK, Lot A0108012			(Purchased Reagent)	Vinyl chloride	2000 ug/mL
							Cyclohexanone	20000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
MV-Gas/Ket A_00034	12/02/15	06/02/15	P&T Methanol, Lot 85233	10 mL	MV-567642_00018	160 uL	2-Butanone (MEK)	160 ug/mL
							2-Hexanone	160 ug/mL
							4-Methyl-2-pentanone (MIBK)	160 ug/mL
							Acetone	160 ug/mL
					MV-567645_00019	200 uL	Bromomethane	40 ug/mL
							Chloroethane	40 ug/mL
							Chloromethane	40 ug/mL
							Dichlorodifluoromethane	40 ug/mL
							Trichlorofluoromethane	40 ug/mL
							Vinyl chloride	40 ug/mL
.MV-567642_00018	02/29/16	RESTEK, Lot A093365	(Purchased Reagent)	2-Butanone (MEK)	10000 ug/mL			
				2-Hexanone	10000 ug/mL			
				4-Methyl-2-pentanone (MIBK)	10000 ug/mL			
				Acetone	10000 ug/mL			
.MV-567645_00019	09/30/16	RESTEK, Lot A0105755	(Purchased Reagent)	Bromomethane	2000 ug/mL			
				Chloroethane	2000 ug/mL			
				Chloromethane	2000 ug/mL			
				Dichlorodifluoromethane	2000 ug/mL			
				Trichlorofluoromethane	2000 ug/mL			
Vinyl chloride	2000 ug/mL							
MV-Gas/Ket B_00017	07/07/15	01/07/15	P&T Methanol, Lot 62345	10 mL	MV-567642.sec_00015	160 uL	2-Butanone (MEK)	160 ug/mL
							2-Hexanone	160 ug/mL
							4-Methyl-2-pentanone (MIBK)	160 ug/mL
							Acetone	160 ug/mL
					MV-567645.sec_00017	200 uL	Bromomethane	40 ug/mL
							Chloroethane	40 ug/mL
							Chloromethane	40 ug/mL
							Dichlorodifluoromethane	40 ug/mL
							Trichlorofluoromethane	40 ug/mL
							Vinyl chloride	40 ug/mL
.MV-567642.sec_00015	02/28/17	RESTEK, Lot A0101295	(Purchased Reagent)	2-Butanone (MEK)	10000 ug/mL			
				2-Hexanone	10000 ug/mL			
				4-Methyl-2-pentanone (MIBK)	10000 ug/mL			
				Acetone	10000 ug/mL			
.MV-567645.sec_00017	11/30/15	RESTEK, Lot A099261	(Purchased Reagent)	Bromomethane	2000 ug/mL			
				Chloroethane	2000 ug/mL			
				Chloromethane	2000 ug/mL			
				Dichlorodifluoromethane	2000 ug/mL			

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Trichlorofluoromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
MV-Gas/Ket B_00019	10/29/15	04/29/15	P&T Methanol, Lot 85233	10 mL	MV-567642.sec_0001 6	160 uL	2-Butanone (MEK)	160 ug/mL
							2-Hexanone	160 ug/mL
							4-Methyl-2-pentanone (MIBK)	160 ug/mL
							Acetone	160 ug/mL
					MV-567645.sec_0001 7	200 uL	Bromomethane	40 ug/mL
							Chloroethane	40 ug/mL
							Chloromethane	40 ug/mL
							Dichlorodifluoromethane	40 ug/mL
							Trichlorofluoromethane	40 ug/mL
							Vinyl chloride	40 ug/mL
.MV-567642.sec_00016	02/28/17		RESTEK, Lot A0101295			(Purchased Reagent)	2-Butanone (MEK)	10000 ug/mL
							2-Hexanone	10000 ug/mL
							4-Methyl-2-pentanone (MIBK)	10000 ug/mL
							Acetone	10000 ug/mL
.MV-567645.sec_00017	11/30/15		RESTEK, Lot A099261			(Purchased Reagent)	Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Dichlorodifluoromethane	2000 ug/mL
							Trichlorofluoromethane	2000 ug/mL
Vinyl chloride	2000 ug/mL							
MV-Main A_00022	07/16/15	01/16/15	P&T Methanol, Lot 62345	25 mL	MV-567641_00014	500 uL	1,1,1,2-Tetrachloroethane	40 ug/mL
							1,1,1-Trichloroethane	40 ug/mL
							1,1,2,2-Tetrachloroethane	40 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	40 ug/mL
							1,1,2-Trichloroethane	40 ug/mL
							1,1-Dichloroethane	40 ug/mL
							1,1-Dichloroethene	40 ug/mL
							1,1-Dichloropropene	40 ug/mL
							1,2,3-Trichlorobenzene	40 ug/mL
							1,2,3-Trichloropropane	40 ug/mL
							1,2,4-Trichlorobenzene	40 ug/mL
							1,2,4-Trimethylbenzene	40 ug/mL
							1,2-Dibromo-3-Chloropropane	40 ug/mL
1,2-Dibromoethane	40 ug/mL							

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-70279-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichlorobenzene	40 ug/mL
							1,2-Dichloroethane	40 ug/mL
							1,2-Dichloropropane	40 ug/mL
							1,3,5-Trimethylbenzene	40 ug/mL
							1,3-Dichlorobenzene	40 ug/mL
							1,3-Dichloropropane	40 ug/mL
							1,4-Dichlorobenzene	40 ug/mL
							1,4-Dioxane	800 ug/mL
							2,2-Dichloropropane	40 ug/mL
							2-Chlorotoluene	40 ug/mL
							3-Chloro-1-propene	40 ug/mL
							4-Chlorotoluene	40 ug/mL
							Acrylonitrile	400 ug/mL
							Benzene	40 ug/mL
							Bromobenzene	40 ug/mL
							Bromochloromethane	40 ug/mL
							Bromodichloromethane	40 ug/mL
							Bromoform	40 ug/mL
							Carbon disulfide	40 ug/mL
							Carbon tetrachloride	40 ug/mL
							Chlorobenzene	40 ug/mL
							Chlorodibromomethane	40 ug/mL
							Chloroform	40 ug/mL
							cis-1,2-Dichloroethene	40 ug/mL
							cis-1,3-Dichloropropene	40 ug/mL
							Cyclohexane	40 ug/mL
							Dibromomethane	40 ug/mL
							Ethyl ether	40 ug/mL
							Ethyl methacrylate	40 ug/mL
							Ethylbenzene	40 ug/mL
							Hexachlorobutadiene	40 ug/mL
							Hexane	40 ug/mL
							Iodomethane	40 ug/mL
							Isobutyl alcohol	1000 ug/mL
							Isopropylbenzene	40 ug/mL
							m-Xylene & p-Xylene	40 ug/mL
							Methyl acetate	200 ug/mL
							Methyl tert-butyl ether	40 ug/mL
							Methylcyclohexane	40 ug/mL
							Methylene Chloride	40 ug/mL
							n-Butylbenzene	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-70279-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							N-Propylbenzene	40 ug/mL
							Naphthalene	40 ug/mL
							o-Xylene	40 ug/mL
							p-Isopropyltoluene	40 ug/mL
							sec-Butylbenzene	40 ug/mL
							Styrene	40 ug/mL
							tert-Butyl alcohol	400 ug/mL
							tert-Butylbenzene	40 ug/mL
							Tetrachloroethene	40 ug/mL
							Tetrahydrofuran	80 ug/mL
							Toluene	40 ug/mL
							trans-1,2-Dichloroethene	40 ug/mL
							trans-1,3-Dichloropropene	40 ug/mL
							trans-1,4-Dichloro-2-butene	40 ug/mL
							Trichloroethene	40 ug/mL
					MV-568034_00010	1000 uL	1-Chlorohexane	40 ug/mL
							2-Pentanone	160 ug/mL
							sec-Butyl Alcohol	1200 ug/mL
.MV-567641_00014	02/29/16		RESTEK, Lot A093581			(Purchased Reagent)	1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2000 ug/mL
							1,1,2-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,1-Dichloropropene	2000 ug/mL
							1,2,3-Trichlorobenzene	2000 ug/mL
							1,2,3-Trichloropropane	2000 ug/mL
							1,2,4-Trichlorobenzene	2000 ug/mL
							1,2,4-Trimethylbenzene	2000 ug/mL
							1,2-Dibromo-3-Chloropropane	2000 ug/mL
							1,2-Dibromoethane	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,3,5-Trimethylbenzene	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,3-Dichloropropane	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							1,4-Dioxane	40000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,2-Dichloropropane	2000 ug/mL
							2-Chlorotoluene	2000 ug/mL
							3-Chloro-1-propene	2000 ug/mL
							4-Chlorotoluene	2000 ug/mL
							Acrylonitrile	20000 ug/mL
							Benzene	2000 ug/mL
							Bromobenzene	2000 ug/mL
							Bromochloromethane	2000 ug/mL
							Bromodichloromethane	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chlorodibromomethane	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Cyclohexane	2000 ug/mL
							Dibromomethane	2000 ug/mL
							Ethyl ether	2000 ug/mL
							Ethyl methacrylate	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Hexachlorobutadiene	2000 ug/mL
							Hexane	2000 ug/mL
							Iodomethane	2000 ug/mL
							Isobutyl alcohol	50000 ug/mL
							Isopropylbenzene	2000 ug/mL
							m-Xylene & p-Xylene	2000 ug/mL
							Methyl acetate	10000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylcyclohexane	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							n-Butylbenzene	2000 ug/mL
							N-Propylbenzene	2000 ug/mL
							Naphthalene	2000 ug/mL
							o-Xylene	2000 ug/mL
							p-Isopropyltoluene	2000 ug/mL
							sec-Butylbenzene	2000 ug/mL
							Styrene	2000 ug/mL
							tert-Butyl alcohol	20000 ug/mL
							tert-Butylbenzene	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Tetrachloroethene	2000 ug/mL
							Tetrahydrofuran	4000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							trans-1,4-Dichloro-2-butene	2000 ug/mL
							Trichloroethene	2000 ug/mL
.MV-568034_00010	01/31/16		RESTEK, Lot A0104827			(Purchased Reagent)	1-Chlorohexane	1000 ug/mL
							2-Pentanone	4000 ug/mL
							sec-Butyl Alcohol	30000 ug/mL
MV-Main A_00023	11/20/15	05/20/15	P&T Methanol, Lot 62345	25 mL	MV-567641_00014	500 uL	1,1,1,2-Tetrachloroethane	40 ug/mL
							1,1,1-Trichloroethane	40 ug/mL
							1,1,2,2-Tetrachloroethane	40 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	40 ug/mL
							1,1,2-Trichloroethane	40 ug/mL
							1,1-Dichloroethane	40 ug/mL
							1,1-Dichloroethene	40 ug/mL
							1,1-Dichloropropene	40 ug/mL
							1,2,3-Trichlorobenzene	40 ug/mL
							1,2,3-Trichloropropane	40 ug/mL
							1,2,4-Trichlorobenzene	40 ug/mL
							1,2,4-Trimethylbenzene	40 ug/mL
							1,2-Dibromo-3-Chloropropane	40 ug/mL
							1,2-Dibromoethane	40 ug/mL
							1,2-Dichlorobenzene	40 ug/mL
							1,2-Dichloroethane	40 ug/mL
							1,2-Dichloropropane	40 ug/mL
							1,3,5-Trimethylbenzene	40 ug/mL
							1,3-Dichlorobenzene	40 ug/mL
							1,3-Dichloropropane	40 ug/mL
							1,4-Dichlorobenzene	40 ug/mL
							2,2-Dichloropropane	40 ug/mL
							2-Chlorotoluene	40 ug/mL
							3-Chloro-1-propene	40 ug/mL
							4-Chlorotoluene	40 ug/mL
							Acrylonitrile	400 ug/mL
							Benzene	40 ug/mL
							Bromobenzene	40 ug/mL
							Bromochloromethane	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-70279-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bromodichloromethane	40 ug/mL
							Bromoform	40 ug/mL
							Carbon disulfide	40 ug/mL
							Carbon tetrachloride	40 ug/mL
							Chlorobenzene	40 ug/mL
							Chlorodibromomethane	40 ug/mL
							Chloroform	40 ug/mL
							cis-1,2-Dichloroethene	40 ug/mL
							cis-1,3-Dichloropropene	40 ug/mL
							Cyclohexane	40 ug/mL
							Dibromomethane	40 ug/mL
							Ethyl ether	40 ug/mL
							Ethyl methacrylate	40 ug/mL
							Ethylbenzene	40 ug/mL
							Hexachlorobutadiene	40 ug/mL
							Hexane	40 ug/mL
							Iodomethane	40 ug/mL
							Isobutyl alcohol	1000 ug/mL
							Isopropylbenzene	40 ug/mL
							m-Xylene & p-Xylene	40 ug/mL
							Methyl acetate	200 ug/mL
							Methyl tert-butyl ether	40 ug/mL
							Methylcyclohexane	40 ug/mL
							Methylene Chloride	40 ug/mL
							n-Butylbenzene	40 ug/mL
							N-Propylbenzene	40 ug/mL
							Naphthalene	40 ug/mL
							o-Xylene	40 ug/mL
							p-Isopropyltoluene	40 ug/mL
							sec-Butylbenzene	40 ug/mL
							Styrene	40 ug/mL
							tert-Butyl alcohol	400 ug/mL
							tert-Butylbenzene	40 ug/mL
							Tetrachloroethene	40 ug/mL
							Tetrahydrofuran	80 ug/mL
							Toluene	40 ug/mL
							trans-1,2-Dichloroethene	40 ug/mL
							trans-1,3-Dichloropropene	40 ug/mL
							trans-1,4-Dichloro-2-butene	40 ug/mL
							Trichloroethene	40 ug/mL
					MV-568034_00010	1000 uL	1-Chlorohexane	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-70279-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Pentanone	160 ug/mL
							sec-Butyl Alcohol	1200 ug/mL
.MV-567641_00014	02/29/16		RESTEK, Lot A093581		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2000 ug/mL
							1,1,2-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,1-Dichloropropene	2000 ug/mL
							1,2,3-Trichlorobenzene	2000 ug/mL
							1,2,3-Trichloropropane	2000 ug/mL
							1,2,4-Trichlorobenzene	2000 ug/mL
							1,2,4-Trimethylbenzene	2000 ug/mL
							1,2-Dibromo-3-Chloropropane	2000 ug/mL
							1,2-Dibromoethane	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,3,5-Trimethylbenzene	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,3-Dichloropropane	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							2,2-Dichloropropane	2000 ug/mL
							2-Chlorotoluene	2000 ug/mL
							3-Chloro-1-propene	2000 ug/mL
							4-Chlorotoluene	2000 ug/mL
							Acrylonitrile	20000 ug/mL
							Benzene	2000 ug/mL
							Bromobenzene	2000 ug/mL
							Bromochloromethane	2000 ug/mL
							Bromodichloromethane	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chlorodibromomethane	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-70279-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Cyclohexane	2000 ug/mL
							Dibromomethane	2000 ug/mL
							Ethyl ether	2000 ug/mL
							Ethyl methacrylate	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Hexachlorobutadiene	2000 ug/mL
							Hexane	2000 ug/mL
							Iodomethane	2000 ug/mL
							Isobutyl alcohol	50000 ug/mL
							Isopropylbenzene	2000 ug/mL
							m-Xylene & p-Xylene	2000 ug/mL
							Methyl acetate	10000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylcyclohexane	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							n-Butylbenzene	2000 ug/mL
							N-Propylbenzene	2000 ug/mL
							Naphthalene	2000 ug/mL
							o-Xylene	2000 ug/mL
							p-Isopropyltoluene	2000 ug/mL
							sec-Butylbenzene	2000 ug/mL
							Styrene	2000 ug/mL
							tert-Butyl alcohol	20000 ug/mL
							tert-Butylbenzene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Tetrahydrofuran	4000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							trans-1,4-Dichloro-2-butene	2000 ug/mL
							Trichloroethene	2000 ug/mL
.MV-568034_00010	01/31/16		RESTEK, Lot A0104827			(Purchased Reagent)	1-Chlorohexane	1000 ug/mL
							2-Pentanone	4000 ug/mL
							sec-Butyl Alcohol	30000 ug/mL
MV-Main B_00009	05/28/15	11/28/14	P&T Methanol, Lot 62345	20 mL	MV-567641.sec_00010	400 uL	1,1,1,2-Tetrachloroethane	40 ug/mL
							1,1,1-Trichloroethane	40 ug/mL
							1,1,2,2-Tetrachloroethane	40 ug/mL
							1,1,2-Trichloroethane	40 ug/mL
							1,1-Dichloroethane	40 ug/mL
							1,1-Dichloroethene	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-70279-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1-Dichloropropene	40 ug/mL
							1,2,3-Trichlorobenzene	40 ug/mL
							1,2,3-Trichloropropane	40 ug/mL
							1,2,4-Trichlorobenzene	40 ug/mL
							1,2,4-Trimethylbenzene	40 ug/mL
							1,2-Dibromo-3-Chloropropane	40 ug/mL
							1,2-Dibromoethane	40 ug/mL
							1,2-Dichlorobenzene	40 ug/mL
							1,2-Dichloroethane	40 ug/mL
							1,2-Dichloropropane	40 ug/mL
							1,3,5-Trimethylbenzene	40 ug/mL
							1,3-Dichlorobenzene	40 ug/mL
							1,3-Dichloropropane	40 ug/mL
							1,4-Dichlorobenzene	40 ug/mL
							2,2-Dichloropropane	40 ug/mL
							2-Chlorotoluene	40 ug/mL
							4-Chlorotoluene	40 ug/mL
							Benzene	40 ug/mL
							Bromobenzene	40 ug/mL
							Bromochloromethane	40 ug/mL
							Bromodichloromethane	40 ug/mL
							Bromoform	40 ug/mL
							Carbon disulfide	40 ug/mL
							Carbon tetrachloride	40 ug/mL
							Chlorobenzene	40 ug/mL
							Chlorodibromomethane	40 ug/mL
							Chloroform	40 ug/mL
							cis-1,2-Dichloroethene	40 ug/mL
							cis-1,3-Dichloropropene	40 ug/mL
							Dibromomethane	40 ug/mL
							Ethylbenzene	40 ug/mL
							Hexachlorobutadiene	40 ug/mL
							Isopropylbenzene	40 ug/mL
							m-Xylene & p-Xylene	40 ug/mL
							Methyl tert-butyl ether	40 ug/mL
							Methylene Chloride	40 ug/mL
							n-Butylbenzene	40 ug/mL
							N-Propylbenzene	40 ug/mL
							Naphthalene	40 ug/mL
							o-Xylene	40 ug/mL
							p-Isopropyltoluene	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-70279-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							sec-Butylbenzene	40 ug/mL
							Styrene	40 ug/mL
							tert-Butyl alcohol	400 ug/mL
							tert-Butylbenzene	40 ug/mL
							Tetrachloroethene	40 ug/mL
							Toluene	40 ug/mL
							trans-1,2-Dichloroethene	40 ug/mL
							trans-1,3-Dichloropropene	40 ug/mL
							Trichloroethene	40 ug/mL
.MV-567641.sec_00010	02/29/16		RESTEK, Lot A093733		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,1-Dichloropropene	2000 ug/mL
							1,2,3-Trichlorobenzene	2000 ug/mL
							1,2,3-Trichloropropane	2000 ug/mL
							1,2,4-Trichlorobenzene	2000 ug/mL
							1,2,4-Trimethylbenzene	2000 ug/mL
							1,2-Dibromo-3-Chloropropane	2000 ug/mL
							1,2-Dibromoethane	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,3,5-Trimethylbenzene	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,3-Dichloropropane	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							2,2-Dichloropropane	2000 ug/mL
							2-Chlorotoluene	2000 ug/mL
							4-Chlorotoluene	2000 ug/mL
							Benzene	2000 ug/mL
							Bromobenzene	2000 ug/mL
							Bromochloromethane	2000 ug/mL
							Bromodichloromethane	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chlorodibromomethane	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Dibromomethane	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Hexachlorobutadiene	2000 ug/mL
							Isopropylbenzene	2000 ug/mL
							m-Xylene & p-Xylene	2000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							n-Butylbenzene	2000 ug/mL
							N-Propylbenzene	2000 ug/mL
							Naphthalene	2000 ug/mL
							o-Xylene	2000 ug/mL
							p-Isopropyltoluene	2000 ug/mL
							sec-Butylbenzene	2000 ug/mL
							Styrene	2000 ug/mL
							tert-Butyl alcohol	20000 ug/mL
							tert-Butylbenzene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							Trichloroethene	2000 ug/mL
MV-Main B_00010	10/20/15	04/20/15	P&T Methanol, Lot 85233	20 mL	MV-567641.sec_00010	400 uL	1,1,1,2-Tetrachloroethane	40 ug/mL
							1,1,1-Trichloroethane	40 ug/mL
							1,1,2,2-Tetrachloroethane	40 ug/mL
							1,1,2-Trichloroethane	40 ug/mL
							1,1-Dichloroethane	40 ug/mL
							1,1-Dichloroethene	40 ug/mL
							1,1-Dichloropropene	40 ug/mL
							1,2,3-Trichlorobenzene	40 ug/mL
							1,2,3-Trichloropropane	40 ug/mL
							1,2,4-Trichlorobenzene	40 ug/mL
							1,2,4-Trimethylbenzene	40 ug/mL
							1,2-Dibromo-3-Chloropropane	40 ug/mL
							1,2-Dibromoethane	40 ug/mL
							1,2-Dichlorobenzene	40 ug/mL
							1,2-Dichloroethane	40 ug/mL
							1,2-Dichloropropane	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-70279-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,3,5-Trimethylbenzene	40 ug/mL
							1,3-Dichlorobenzene	40 ug/mL
							1,3-Dichloropropane	40 ug/mL
							1,4-Dichlorobenzene	40 ug/mL
							2,2-Dichloropropane	40 ug/mL
							2-Chlorotoluene	40 ug/mL
							4-Chlorotoluene	40 ug/mL
							Benzene	40 ug/mL
							Bromobenzene	40 ug/mL
							Bromochloromethane	40 ug/mL
							Bromodichloromethane	40 ug/mL
							Bromoform	40 ug/mL
							Carbon disulfide	40 ug/mL
							Carbon tetrachloride	40 ug/mL
							Chlorobenzene	40 ug/mL
							Chlorodibromomethane	40 ug/mL
							Chloroform	40 ug/mL
							cis-1,2-Dichloroethene	40 ug/mL
							cis-1,3-Dichloropropene	40 ug/mL
							Dibromomethane	40 ug/mL
							Ethylbenzene	40 ug/mL
							Hexachlorobutadiene	40 ug/mL
							Isopropylbenzene	40 ug/mL
							m-Xylene & p-Xylene	40 ug/mL
							Methyl tert-butyl ether	40 ug/mL
							Methylene Chloride	40 ug/mL
							n-Butylbenzene	40 ug/mL
							N-Propylbenzene	40 ug/mL
							Naphthalene	40 ug/mL
							o-Xylene	40 ug/mL
							p-Isopropyltoluene	40 ug/mL
							sec-Butylbenzene	40 ug/mL
							Styrene	40 ug/mL
							tert-Butyl alcohol	400 ug/mL
							tert-Butylbenzene	40 ug/mL
							Tetrachloroethene	40 ug/mL
							Toluene	40 ug/mL
							trans-1,2-Dichloroethene	40 ug/mL
							trans-1,3-Dichloropropene	40 ug/mL
							Trichloroethene	40 ug/mL
.MV-567641.sec_00010	02/29/16		RESTEK, Lot A093733			(Purchased Reagent)	1,1,1,2-Tetrachloroethane	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,1-Dichloropropene	2000 ug/mL
							1,2,3-Trichlorobenzene	2000 ug/mL
							1,2,3-Trichloropropane	2000 ug/mL
							1,2,4-Trichlorobenzene	2000 ug/mL
							1,2,4-Trimethylbenzene	2000 ug/mL
							1,2-Dibromo-3-Chloropropane	2000 ug/mL
							1,2-Dibromoethane	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,3,5-Trimethylbenzene	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,3-Dichloropropane	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							2,2-Dichloropropane	2000 ug/mL
							2-Chlorotoluene	2000 ug/mL
							4-Chlorotoluene	2000 ug/mL
							Benzene	2000 ug/mL
							Bromobenzene	2000 ug/mL
							Bromochloromethane	2000 ug/mL
							Bromodichloromethane	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chlorodibromomethane	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Dibromomethane	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Hexachlorobutadiene	2000 ug/mL
							Isopropylbenzene	2000 ug/mL
							m-Xylene & p-Xylene	2000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylene Chloride	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							n-Butylbenzene	2000 ug/mL
							N-Propylbenzene	2000 ug/mL
							Naphthalene	2000 ug/mL
							o-Xylene	2000 ug/mL
							p-Isopropyltoluene	2000 ug/mL
							sec-Butylbenzene	2000 ug/mL
							Styrene	2000 ug/mL
							tert-Butyl alcohol	20000 ug/mL
							tert-Butylbenzene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							Trichloroethene	2000 ug/mL
MV-Supp A_00011	06/30/15	02/03/15	P&T Methanol, Lot 85233	10 mL	MV-568036_00007	400 uL	cis-1,4-Dichloro-2-butene	40 ug/mL
					mv-569725_00001	160 uL	1,2,3-Trimethylbenzene	40 ug/mL
							2-Chloro-1,3-butadiene	40 ug/mL
							2-Nitropropane	80 ug/mL
							Ethyl acetate	80 ug/mL
							Isopropyl alcohol	400 ug/mL
							Methacrylonitrile	400 ug/mL
							Methyl methacrylate	80 ug/mL
							n-Butanol	1000 ug/mL
					mv-569728_00001	200 uL	Acetonitrile	500 ug/mL
							Ethanol	2000 ug/mL
							Isopropyl ether	50 ug/mL
							Propionitrile	500 ug/mL
							Tert-amyl methyl ether	50 ug/mL
							Tert-butyl ethyl ether	50 ug/mL
.MV-568036_00007	12/31/15		RESTEK, Lot A0104018			(Purchased Reagent)	cis-1,4-Dichloro-2-butene	1000 ug/mL
.mv-569725_00001	07/31/15		Restek, Lot A0108219			(Purchased Reagent)	1,2,3-Trimethylbenzene	2500 ug/mL
							2-Chloro-1,3-butadiene	2500 ug/mL
							2-Nitropropane	5000 ug/mL
							Ethyl acetate	5000 ug/mL
							Isopropyl alcohol	25000 ug/mL
							Methacrylonitrile	25000 ug/mL
							Methyl methacrylate	5000 ug/mL
							n-Butanol	62500 ug/mL
.mv-569728_00001	01/31/17		RESTEK, Lot A0108216			(Purchased Reagent)	Acetonitrile	25000 ug/mL
							Ethanol	100000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Isopropyl ether	2500 ug/mL
							Propionitrile	25000 ug/mL
							Tert-amyl methyl ether	2500 ug/mL
							Tert-butyl ethyl ether	2500 ug/mL
TDS LCS_00536_00058	09/04/15	06/04/15	Di Water, Lot na	1000 mL	NaCl f_00004	0.5011 g	Total Dissolved Solids (TDS)	501.1 mg/L
.NaCl f_00004	04/14/21		JT Baker, Lot J48622		(Purchased Reagent)		Total Dissolved Solids (TDS)	1 g/g

10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

- November 20, 2014

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec. 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year from the date of opening the sealed TCT bag or after the date given in Sec. 11.3, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

11.3 Lot Expiration Date

- November 20, 2017

- The date after which this CRM/RM should not be used (See Sec. 11.2).

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

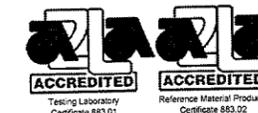
tel: 800.669.6799 · 540.585.3030

fax: 540.585.3012

info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number (010105).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGTL1
Lot Number: H2-TL02003R
Matrix: 0.7% v/v HNO3
Value/Analyte(s): 1 000 µg/mL Thallium
Starting Material: TINO3
Starting Material Lot#: 1576
Starting Material Purity: 99.9996%



3083481
ID: 1000 TL_00010
Exp:11/20/17 Prpd:SJS Opn:01/27/15
1000 TI

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1003 ± 7 µg/mL - no weighted mean
Certified Density: 1.003 g/mL (measured at 20 ± 1 °C)

Assay Information:

Assay Method #1 1003 ± 6 µg/mL
ICP Assay NIST SRM 3158 Lot Number: 993012

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$$

X_a = mean of Assay Method A with standard uncertainty $u_{char a}$

X_b = mean of Assay Method B with standard uncertainty $u_{char b}$

w_a and w_b = the weighting factors for each method calculated using the inverse

square of the variance:

$$w_a = (1/u_{char a})^2 / ((1/u_{char a})^2 + (1/u_{char b})^2)$$

$$w_b = (1/u_{char b})^2 / ((1/u_{char a})^2 + (1/u_{char b})^2)$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a\&b}^2 + u_{bb}^2 + u_{lts}^2 + u_{sts}^2)^{1/2}$$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char a\&b} = [(w_a)^2 (u_{char a})^2 + (w_b)^2 (u_{char b})^2]^{1/2}$ where $u_{char a}$ and $u_{char b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{sts} = short term stability standard uncertainty (transportation)

No correction has been applied for transpiration that will occur after the CRM/RM bottle has been removed from the sealed aluminized bag. See Sec. 7.0 (Instructions for the Correct Use of this Reference Material) for more information.

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.005315	M Er < 0.013288	M Mn < 0.010631	O S < 0.030000	M V < 0.005315
O Al < 0.005000	M Eu < 0.007973	M Mo < 0.005315	M Sb < 0.001328	M W < 0.026577
M As < 0.026577	O Fe < 0.001000	O Na < 0.000100	M Sc < 0.026577	M Y < 0.106311
M Au < 0.007973	M Ga < 0.002657	M Nb < 0.001328	M Se < 0.021262	M Yb < 0.002657
O B < 0.001400	M Gd < 0.002657	M Nd < 0.005315	O Si < 0.003400	O Zn < 0.001054
M Ba < 0.026577	M Ge < 0.015946	O Ni < 0.000900	M Sm < 0.002657	M Zr < 0.013288
M Be < 0.001328	M Hf < 0.005315	n Os <	M Sn < 0.013288	
M Bi < 0.001063	O Hg < 0.012000	O P < 0.002600	M Sr < 0.001328	
O Ca < 0.000639	M Ho < 0.001328	M Pb < 0.003701	M Ta < 0.018604	
O Cd < 0.000794	M In < 0.026577	M Pd < 0.013288	M Tb < 0.000797	
M Ce < 0.013288	M Ir < 0.013288	M Pr < 0.000797	M Te < 0.079733	
M Co < 0.007973	O K < 0.001800	M Pt < 0.005315	M Th < 0.002657	
M Cr < 0.013288	M La < 0.001328	M Rb < 0.002657	M Ti < 0.132889	
M Cs < 0.000797	O Li < 0.000020	M Re < 0.002657	s Tl <	
M Cu < 0.015946	M Lu < 0.001063	M Rh < 0.002657	M Tm < 0.001063	
M Dy < 0.015946	O Mg < 0.000030	M Ru < 0.005315	M U < 0.005315	

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = \text{mean of Assay Method A with standard uncertainty } u_{char a}$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{sts}^2)^{1/2}$$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{sts} = short term stability standard uncertainty (transportation)

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30°C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag keep cap tightly sealed when not in use. Store and use at 20° ± 4°C. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT.

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 204.38 +1 6 Ti(H2O)61+

Chemical Compatibility - Soluble in HCl, HNO3, and H2SO4. Stable with most metals and inorganic anions. The sulfite, thiocyanate and oxalate are moderately soluble; the phosphate and arsenite are slightly soluble and the sulfide is insoluble.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.

Ti Containing Samples (Preparation and Solution) -Metal (Best dissolved in HNO3 which forms chiefly the Ti1+ ion.); Oxide (The thallic oxide is readily soluble in water. The thallic oxide requires high levels of acid); Ores (Carbonate fusion in PtO followed by HCl dissolution); Organic Matrices (Sulfuric/peroxide digestion or dry ash and dissolution in HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 205 amu	2 ppt	N/A	189Os16O
ICP-OES 190.864 nm	0.04 / 0.004 µg/mL	1	V, Ti
ICP-OES 276.787 nm	0.1 / 0.01 µg/mL	1	Ta, V, Fe, Cr
ICP-OES 351.924 nm	0.2 / 0.02 µg/mL	1	Th, Ce, Zr

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

10.4 ISO/IEC Guide 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 30, 2013

11.2 Period of Validity

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.3. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

11.3 Expiration Date

EXPIRES
01/2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Zach Saunders
Product Documentation Technician

Certificate Approved By:

Elizabeth Day
Quality Assurance Specialist

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director



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Christiansburg, VA 24073 · USA
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CERTIFICATE OF ANALYSIS

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number (010105)).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGFE10
Lot Number: G2-FE04033
Matrix: 5% (v/v) HNO3
Value/Analyte(s): 10 000 µg/mL Iron
Starting Material: Fe pieces
Starting Material Lot#: 1820
Starting Material Purity: 99.9965%



2942394
ID: 10000 Fe_00012
Exp: 11/01/15 Ppt4: SUS Opn: 10/22/14
10000 Fe IV

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10,009 ± 26 µg/mL weighted m
Certified Density: 1.045 g/mL (measured at 20 ± 1 °C)

Assay Information:

Assay Method #1 10,002 ± 62 µg/mL
ICP Assay NIST SRM 3126a Lot Number: 051031
Assay Method #2 10,010 ± 25 µg/mL
EDTA NIST SRM 928 Lot Number: 928

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$$

X_a = mean of Assay Method A with standard uncertainty $u_{char a}$
 X_b = mean of Assay Method B with standard uncertainty $u_{char b}$
 w_a and w_b = the weighting factors for each method calculated using the inverse square of the variance:

$$w_a = (1/u_{char a})^2 / ((1/u_{char a})^2 + (1/u_{char b})^2)$$

$$w_b = (1/u_{char b})^2 / ((1/u_{char a})^2 + (1/u_{char b})^2)$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a\&b}^2 + u_{bb}^2 + u_{lts}^2 + u_{sts}^2)^{1/2}$$

k = coverage factor = 2 in all cases at Inorganic Ventures
 $u_{char a\&b} = [(w_a)^2 (u_{char a})^2 + (w_b)^2 (u_{char b})^2]^{1/2}$ where $u_{char a}$ and $u_{char b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{lts} = long term stability standard uncertainty (storage)
 u_{sts} = short term stability standard uncertainty (transportation)

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = \text{mean of Assay Method A with standard uncertainty } u_{char a}$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{sts}^2)^{1/2}$$

k = coverage factor = 2 in all cases at Inorganic Ventures
 $u_{char a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{lts} = long term stability standard uncertainty (storage)
 u_{sts} = short term stability standard uncertainty (transportation)

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.003345	M Er < 0.000669	O Mn 0.085220	O S 0.035508	M V < 0.006691
M Al 0.038180	M Eu < 0.000669	M Mo < 0.066908	M Sb 0.033254	M W < 0.020072
M As < 0.053526	s Fe <	O Na 0.010416	M Sc < 0.001338	M Y < 0.000669
M Au < 0.000669	M Ga < 0.033454	M Nb < 0.013382	M Se < 0.020072	M Yb < 0.000669
O B < 0.012860	M Gd < 0.000669	M Nd < 0.000669	O Si 0.054446	M Zn 0.053575
O Ba < 0.003858	i Ge <	M Ni 0.032761	M Sm < 0.006691	M Zr < 0.006691
O Be < 0.000257	M Hf < 0.003345	n Os <	M Sn < 0.006691	
M Bi < 0.001338	O Hg < 0.007716	i P <	O Sr < 0.001286	
O Ca 0.017991	M Ho < 0.000669	M Pb < 0.003345	M Ta < 0.000669	
M Cd < 0.000669	M In < 0.026763	M Pd < 0.000669	M Tb < 0.000669	
M Ce < 0.001338	M Ir < 0.000669	M Pr < 0.000669	M Te < 0.033454	
M Co 0.018105	O K 0.006628	M Pt < 0.001338	M Th < 0.000669	
O Cr 0.023672	M La < 0.000669	M Rb < 0.000669	O Ti < 0.002572	
M Cs < 0.006691	O Li < 0.000077	M Re < 0.000669	M Tl < 0.000669	
M Cu 0.019952	M Lu < 0.000669	M Rh < 0.000669	M Tm < 0.000669	
M Dy < 0.000669	O Mg 0.001184	M Ru < 0.000669	M U < 0.000669	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Keep tightly sealed when not in use. Store and use at 20 ± 4°C. Do not pipette from the container. Do not return removed aliquots to container.

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 55.85 +3 6 Fe(H2O)63+

Chemical Compatibility -Stable in HCl, HNO3, H2SO4, HF and H3PO4. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO3 / LDPE container.

Fe Containing Samples (Preparation and Solution) - Metal (Soluble in HCl); Oxides (If the oxide has been at a high temperature then Na2CO3 fusion in Pt0 followed by HCl dissolution otherwise dissolve in dilute HCl); Ores (See Oxides above using only the fusion approach).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

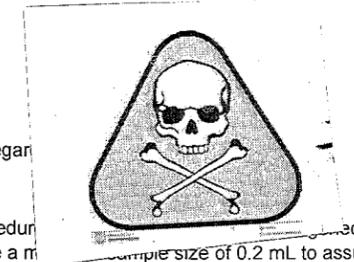
Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 56 amu	970 ppt	N/A	40Ar15N1H, 40Ar16O, 36Ar17O1H, 38Ar18O, 37Cl18O1H, 40Ca16O
ICP-OES 238.204 nm	0.005/0.001 µg/mL		
ICP-OES 239.562 nm	0.005/0.001 µg/mL		
ICP-OES 259.940 nm	0.006/0.001 µg/mL		

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding hazardous materials.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.



10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

10.4 ISO/IEC Guide 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

10.4 ISO/IEC Guide 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 09, 2014

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- January 09, 2017

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year from the date of removal from the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being handled and stored in accordance with the instructions given in Sec 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 • USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 • 540.585.3030

fax: 540.585.3012

info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number 010105).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGNA10
Lot Number: G2-NA03115
Matrix: 2% (v/v) HNO3
Value/Analyte(s): 10 000 µg/mL Sodium
Starting Material: Na2CO3
Starting Material Lot#: 1628
Starting Material Purity: 99.9986%



3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9997 ± 18 µg/mL - weighted mean
Certified Density: 1.032 g/mL (measured at 20 ± 1 °C)

Assay Information:

Assay Method #1 10 006 ± 53 µg/mL
ICP Assay NIST SRM 3152a Lot Number: 120715
Assay Method #2 9996 ± 18 µg/mL
Gravimetric NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM by two independent methods

Characterization of CRM by one method

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$$

X_a = mean of Assay Method A with standard uncertainty $u_{char a}$

X_b = mean of Assay Method B with standard uncertainty $u_{char b}$

w_a and w_b = the weighting factors for each method calculated using the inverse square of the variance:

$$w_a = (1/u_{char a}^2) / ((1/u_{char a}^2) + (1/u_{char b}^2))$$

$$w_b = (1/u_{char b}^2) / ((1/u_{char a}^2) + (1/u_{char b}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{sts}^2)^{1/2}$$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char a \& b} = [(w_a)^2 (u_{char a}^2) + (w_b)^2 (u_{char b}^2)]^{1/2}$ where $u_{char a}$ and $u_{char b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{sts} = short term stability standard uncertainty (transportation)

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O Ag < 0.000730	M Eu < 0.000962	s Na < 0.000962	M Se < 0.019232	O Zn < 0.000122
O Al 0.006326	O Fe 0.000271	M Nb < 0.000962	O Si 0.016569	O Zr < 0.000608
M As < 0.005769	M Ga < 0.001923	M Nd < 0.000962	M Sm < 0.000962	
M Au < 0.000962	M Gd < 0.000962	O Ni < 0.000486	O Sn < 0.006080	
O B < 0.000973	M Ge < 0.001923	n Os < 0.000151	O Sr 0.000151	
O Ba 0.000452	M Hf < 0.000962	O P < 0.010944	M Ta < 0.000962	
O Be < 0.000061	O Hg < 0.000608	M Pb < 0.002885	M Tb < 0.000962	
M Bi < 0.000962	M Ho < 0.000962	M Pd < 0.000962	M Te < 0.019232	
O Ca 0.075312	M In < 0.000962	M Pr < 0.000962	M Th < 0.002885	
O Cd < 0.000486	M Ir < 0.000962	M Pt < 0.000962	O Ti < 0.000608	
M Ce < 0.002885	O K 0.647684	M Rb < 0.019232	M Tl < 0.000962	
O Co < 0.000973	M La < 0.000962	M Re < 0.000962	M Tm < 0.000962	
O Cr < 0.001824	O Li 0.000060	M Rh < 0.000962	M U < 0.000962	
M Cs < 0.009616	M Lu < 0.000962	M Ru < 0.000962	O V < 0.000608	
O Cu < 0.000851	O Mg 0.009941	O S < 0.121600	M W < 0.000962	
M Dy < 0.000962	O Mn 0.000075	M Sb < 0.000962	M Y < 0.000962	
M Er < 0.000962	O Mo < 0.000608	O Sc < 0.000122	M Yb < 0.000962	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag keep cap tightly sealed when not in use. Store and use at 20° ± 4° C. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 22.99 +1 (6) Na+(aq) largely ionic in nature

Chemical Compatibility -Soluble in HCl, HNO3, H2SO4 and HF aqueous matrices. Stable with all metals and inorganic anions.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO3 / LDPE container.

Na Containing Samples (Preparation and Solution) - Metal (Dissolves very rapidly in water); Ores (Lithium carbonate fusion in graphite crucible followed by HCl dissolution - blank levels of Na in lithium carbonate critical); Organic Matrices (Sulfuric / peroxide digestion or nitric/sulfuric/perchloric acid decomposition).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 23 amu	310 ppt	n/a	46Ti+2, 46Ca+2
ICP-OES 330.237 nm	2.0 / 0.09 µg/mL	1	Pd, Zn
ICP-OES 588.995 nm	0.03 / 0.006 µg/mL	1	2nd order radiation from R.E.s on some optical designs
ICP-OES 589.595 nm	0.07 / 0.00009 µg/mL	1	2nd order radiation from R.E.s on some optical designs

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

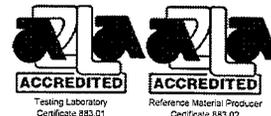
10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories".

Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number (010105)).

**2.0 PRODUCT DESCRIPTION**

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGSI10
Lot Number: H2-SI03035
Matrix: 1% (v/v) HNO₃ / 1.4% (v/v) HF
Value/Analyte(s): 10 000 µg/mL Si
Starting Material: Fumed Silica
Starting Material Lot#: 1771
Starting Material Purity: 99.9931%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10,014 ± 54 µg/mL weighted mean
Certified Density: 1.047 g/mL (measured at 20 ± 1 °C)

Assay Information:

Assay Method #1	10023 ± 61 µg/mL ICP Assay NIST SRM 3150 Lot Number: 071204
Assay Method #2	10004 ± 66 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM by two independent methods

Characterization of CRM by one method

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$$

X_a = mean of Assay Method A with standard uncertainty $u_{char a}$

X_b = mean of Assay Method B with standard uncertainty $u_{char b}$

w_a and w_b = the weighting factors for each method calculated using the inverse square of the variance:

$$w_a = (1/u_{char a})^2 / ((1/u_{char a})^2 + (1/u_{char b})^2)$$

$$w_b = (1/u_{char b})^2 / ((1/u_{char a})^2 + (1/u_{char b})^2)$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k(u_{char a\&b}^2 + u_{bb}^2 + u_{lts}^2 + u_{sts}^2)^{1/2}$$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char a\&b} = [(w_a)^2(u_{char a})^2 + (w_b)^2(u_{char b})^2]^{1/2}$ where $u_{char a}$ and $u_{char b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{sts} = short term stability standard uncertainty (transportation)

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = \text{mean of Assay Method A with standard uncertainty } u_{char a}$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k(u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{sts}^2)^{1/2}$$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{sts} = short term stability standard uncertainty (transportation)

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.000504	M Eu < 0.000252	O Na 0.009671	M Se < 0.025180	O Zn < 0.022280
O Al 0.067220	i Fe <	M Nb < 0.001007	s Si <	O Zr < 0.001114
O As < 0.222800	M Ga < 0.000252	M Nd < 0.002014	M Sm < 0.000252	
M Au < 0.000252	M Gd < 0.000252	O Ni < 0.005570	M Sn < 0.003777	
O B 0.123864	O Ge <	n Os <	O Sr < 0.000334	
O Ba 0.000720	M Hf < 0.001259	O P < 0.111400	M Ta < 0.005036	
O Be < 0.000045	i Hg <	M Pb < 0.000252	M Tb < 0.000252	
M Bi < 0.000252	M Ho < 0.000252	M Pd < 0.000252	M Te < 0.003777	
O Ca 0.017436	M In < 0.000252	M Pr < 0.000252	M Th < 0.002518	
M Cd < 0.000252	M Ir < 0.000252	M Pt < 0.000252	O Ti 0.002201	
M Ce < 0.001259	O K 0.045258	M Rb < 0.050360	M Tl < 0.000252	
M Co < 0.000755	M La < 0.000252	M Re < 0.000252	M Tm < 0.000252	
M Cr < 0.003777	O Li < 0.000111	M Rh < 0.000252	M U < 0.000252	
M Cs < 0.002014	M Lu < 0.000252	M Ru < 0.000252	O V < 0.001114	
O Cu < 0.001114	O Mg 0.001729	O S 1.319624	M W < 0.000252	
M Dy < 0.000252	M Mn < 0.007554	M Sb < 0.000252	M Y < 0.000252	
M Er < 0.000252	M Mo < 0.001259	O Sc < 0.000111	M Yb < 0.000252	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag keep cap tightly sealed when not in use. Store and use at 20° ± 4° C. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 28.09 +4 6 Si(OH)x(F)y2-

Chemical Compatibility -Soluble in HCl, HF, H3PO4 H2SO4 and HNO3 as the Si(OH)x(F)y2-. Avoid neutral to basic media. Unstable at ppm levels with metals that would pull F- away (i.e. Do not mix with Alkaline or Rare Earths, or high levels of transition elements unless they are fluorinated. Stable with most inorganic anions with a tendency to hydrolyze forming silicic acid (silicic acid is soluble up to ~100 ppm in water) in all dilute acids except HF.

Stability - 2-100 ppb levels - stability unknown - (alone or mixed with all other metals) as the Si(OH)x(F)y2-. 1-10,000 ppm single element solutions as the Si(OH)x(F)y2- chemically stable for years in 2-5 % HNO3 / trace HF in a LDPE container.

Si Containing Samples (Preparation and Solution) -Metal (Soluble in 1:1:1 H2O / HF / HNO3); Oxide - SiO2, amorphous (dissolve by heating in 1:1:1 H2O / HF / HNO3); Oxide - quartz (fuse in Pt0 with Na2CO3); Geological Samples(fuse in Pt0with Na2CO3 followed by HCl solution of the fuseate); Organic Matrices containing silicates and non volatile silicon compounds (dry ash at 4500C in Pt0 and dissolve by gently warming with 1:1:1 H2O / HF / H2SO4 or fuse / ash with Na2CO3 and dissolve fuseate with HCl / H2O); Silicone Oils - dimethyl silicones depolymerize to form volatile monomer units when heated (Measure directly in alcoholic KOH / xylene mixture where sample is treated first with the KOH at 60-1000C to "unzip" the Si-O-Si polymeric structure or digest with conc. H2SO4 / H2O2 followed by cooling and dissolution of the dehydrated silica with HF.) Note that the direct analysis of silicone oils in an organic solvent will result in false high results due to high vapor pressure of volatile monomer units like hexamethylcyclotrisiloxane. The KOH forms the K2+Si(CH3)2O= salt which is not volatile at room temperature.

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 28 amu	4000 - 8000 ppt	N/A	N2, 12C16O
ICP-OES 212.412 nm	0.02/0.01 µg/mL	1	Hf, Os, Mo, Ta
ICP-OES 251.611 nm	0.012/0.003 µg/mL	1	Ta, U, Zn, Th
ICP-OES 288.158 nm	0.03/0.004 µg/mL	1	Ta, Ce, Cr, Cd, Th

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

10.4 ISO/IEC Guide 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

May 12, 2014

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **May 12, 2017**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: 3/2/15

- This CRM/RM should not be used longer than one year from the date of removal from the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being handled and stored in accordance with the instructions given in Sec 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

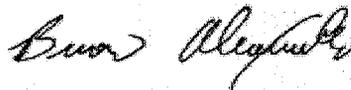
Certificate Prepared By:

Donna Senn
Product Documentation Technician



Certificate Approved By:

Brian Alexander
PhD., Technical Process Director



Certifying Officer:

Paul Gaines
PhD., Senior Technical Director





1 Reagent Lane
 Fair Lawn, NJ 07410
 201.796.7100 tel
 201.796.1329 fax

Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by DNV Certificate number CERT-08052-2006-AQ-HOU-ANAB

This is to certify that units of the above mentioned lot number were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	SS148	Mfg. Date	6/11/2013
Lot Number	133281	Expiration Date	Jun/15
Description	SODIUM CARBONATE SOLUTION, 1N		
Country of Origin	United States		

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	CLEAR, COLORLESS LIQUID
COLOR	APHA	<= 5	<5
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
NORMALITY		Inclusive Between 0.995 - 1.000	1.000



Edgar E. Hase

Lab Manager Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.



Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material



Chemical Testing
Cert #2495.02

Catalog Number: INT-B1

Lot No. 9-164YPY

Description: Analytes B

Matrix: 5% HNO₃

This ASSURANCE® Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for inorganic spectroscopic instrumentation such as ICP-OES, DCP, AA, ICP-MS, and XRF. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

The CRM is prepared from high purity single element concentrates of individual elements using Class A laboratory ware to give precise concentrations. See side 2 for details of certification.

Instrumental Analysis by ICP Spectrometer:

Analyte	Labeled	Measured	Uncertainty	SRM	Analyte	Labeled	Measured	Uncertainty	SRM
Ag	100 mg/L	101 mg/L	±0.5 mg/L	3151*	Be	50 mg/L	49.9 mg/L	±0.3 mg/L	3105a*
Cd	100 mg/L	101 mg/L	±0.5 mg/L	3108*	Co	50 mg/L	49.8 mg/L	±0.3 mg/L	3113*
Ni	100 mg/L	101 mg/L	±0.5 mg/L	3136*	Cr	50 mg/L	49.8 mg/L	±0.3 mg/L	3112a*
Pb	100 mg/L	100 mg/L	±0.5 mg/L	3128*	Cu	50 mg/L	50.0 mg/L	±0.3 mg/L	3114*
Zn	100 mg/L	100 mg/L	±0.5 mg/L	3168a*	Mn	50 mg/L	50.0 mg/L	±0.3 mg/L	3132*
Ba	50 mg/L	50.8 mg/L	±0.3 mg/L	3104a*	V	50 mg/L	50.5 mg/L	±0.3 mg/L	3165*

* - indicates NIST SRM

† - indicates SPEX CertiPrep CRM (when NIST SRM is not available)

SPEX CertiPrep Reference Multi: Lot# 7-166YP, 22-145JB



2432394

ID: ANALYTES B_00007

Exp: 12/30/14 Pripd: SJS Opn: 12/17/13

ICP ANALYTES B SPEX

Balances are calibrated regularly with weight sets traceable to NIST#s 32856, 32867 and others. This CRM is guaranteed stable and accurate to ±0.5% of the certified (measured) value. This includes uncertainty components due to preparation, measurement, homogeneity, short-term and long-term stability as well as transpiration loss. No measured concentration of any individual component exceeds ±2% of the labeled value. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: DEC 2013 Certifying Officer: *Larry Sinfay*

Report of Certification

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001:2008, ISO 17025:2005, and ISO Guide 34:2009 quality system consistent with the following guides:

- ISO 9001: Quality management systems – Requirements – certified by UL-DQS
- ISO 17025: General requirements for the competence of testing and calibration laboratories – accredited by A2LA
- ISO Guide 34: General requirements for the competence of reference material producers – accredited by A2LA
- ISO Guide 31: Reference Materials – Contents of certificates and labels
- Guide To The Expression Of Uncertainty In Measurement 1997
- EURACHEM/CITAC Guide: Quantifying Uncertainty in Analytical Measurement – Second Edition
- ASTM Guide D6362-98
- NIST Technical Note 1297
- ILAC-G12-2000: Guidelines for the requirements for the competence of reference materials producers
- ISO/REMCO N280

Material Source:

All analytes and matrix materials are obtained and verified by SPEX CertiPrep from pre-qualified vendors as per ISO 9001:2008, ISO 17025:2005, and ISO Guide 34:2009 guidelines. Vendor identifications are proprietary, however sources of all materials used in the preparation and testing of SPEX CertiPrep CRMs are tracked and documented. For further assistance, please contact the Sales Support Department at crmsales@spexcsp.com.

Instructions for Use:

Primary usage of this CRM is in neat form or diluted serially with matrix of a purity at or greater than the purity of the original matrix solution. If dilution is required the diluent must be compatible with all certified analytes and contain stabilizers appropriate for the period of intended use. The CRM can also be used as a spike or with a spike, again with appropriate compatibility considerations. All solutions should be thoroughly mixed, by shaking, prior to use and never pipetted directly from the bottle. All surfaces that come in contact with the solution must be thoroughly cleaned and leached prior to use. Dilutions should be performed only with Class A volumetric glassware.

Method of Preparation:

Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, analytical instrumentation and personnel have been qualified prior to use. The highest purity acids applicable, 18 megohm, double deionized water, acid-leached triple-rinsed bottles (where appropriate), and Class A/calibrated volumetrics have been used in all preparations.

Homogeneity:

The homogeneity of the CRM has been confirmed by procedures consistent with ISO 17025:2005, ISO Guide 34:2009, and ASTM D6362-98 Appendix X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedure 4600-HOMOGEN-1A. Since the product is highly homogeneous, any sample size taken for analysis would be within the uncertainty budget. This is consistent with the intended use of the CRM.

Statistical Estimator and Confidence Limits:

The certified value 'X' listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = x \pm U$ where x = measured value, U = expanded uncertainty
 - $U = k u_c$ where $k=2$ is the coverage factor at the 95% confidence level
- U_c is obtained by combining the individual element standard uncertainty components u_i , and $u_c = \sqrt{\sum u_i^2}$

Certification Traveler Report:

All certified values reported were derived from the Traveler Report (SPEX CertiPrep's traceability documentation) identified by the lot number of this CRM. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further assistance, please contact the Sales Support Department at crmsales@spexcsp.com.

Legal Notice:

SPEX CertiPrep reference materials are not for any cosmetic, drug or household application and are to be used only by qualified individuals who are trained in appropriate procedures. No claims against SPEX CertiPrep, Inc. of any kind whatsoever, whether based on breach of warranty, alleged negligence, or otherwise, with respect to this Reference Material shall be greater than the purchase price. In no event shall SPEX CertiPrep, Inc. be liable for any loss of profits or any incidental, special, or consequential damages.

SPEX CertiPrep 

Your Science is Our Passion.®

203 Norcross Ave, Metuchen, NJ 08840
www.spexcertiprep.com • E-mail: crmsales@spexcsp.com
Phone: 1-800-LAB-SPEX • Fax: 732-603-9647



Standard Verification Form

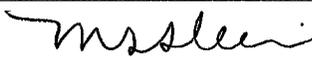
Verification (New vendor or problematic Standard)	<input type="checkbox"/>	Re-Verification	<input checked="" type="checkbox"/>
TALS Reagent Record			
New	<input checked="" type="checkbox"/>	Copied	<input type="checkbox"/>
COA Reviewed against formulary report			<input checked="" type="checkbox"/>

Document instrument verification if need (Initial or re-verification):		
Department	Acceptance Criteria	
	Standard Analytes	Poor Performers* and Esterified Analytes
GC/HPLC	≤ 15 %D	≤ 35 %D or ≤ 50 %D for dinoseb
GCMS/LCMS	≤ 35 %D	≤ 55 %D
MSVOA	≤ 25 %D	≤ 55 %D
Metals	≤ 8 %D	NA
Wet Chemistry	≤ 5 %D	NA

Standard Name	Analytes B	Standard ID	Analytes B_0007	
Verified by	Chris Rhoades	Instrument ID	025	
Verification Date	12/30/14	Method Reference	6010B	
Reference Standard ID	ICAL1A_00450	Batch #	258819	
Analyte/Mix	Prepared Concentration	Verification Concentration	% Diff	Pass/Fail
Analytes B	see raw data			
New Expiration Date:	06/30/15	New TALS ID	Analytes B_0008	
New expiration date can be no greater than ½ the designated standards shelf life from the date of re-verification. Standards can only be re-verified one time.				
Comment:	Original container 2432394 Reverified container 3052939			

1st Level Review Chris Rhoades Date: 12/31/14

2nd Level Review Doug Gomer Date: 1/19/15

QA Review (Re-verification only)		Date: <u>1/20/15</u>
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Attach form, supporting documentation and original CoA to new verified or re-verified standard record in TALS.

*See analytical SOP for details on poor performing analytes.



Reagent ID: ANALYTES B_00008

Type:	ASTD	Expiration Date:	06/30/2015
Description:	ICP ANALYTES B SPEX	Laboratory:	TestAmerica Denver
No. of Bottles:	1	Prepared By:	Rhoades, Chris R
Storage Location:	ICP	Vendor:	SPEX
Reagent Volume:	125.000 mL	Vendor Lot #:	9-164ypy
Creation Date:	12/17/2013 -	Vendor Cat #:	INT-B1
Open Date:			
Container(s):	3052939 -		
Comment:			

*original 2432394
Reverified-*

Reagent Analyte Information

Analyte	Source ID	Source Exp. Date	Source Conc.	Source Conc. Units	Final Conc.	Final Conc. Units
Ag					100.00000	mg/L
Ba					50.00000	mg/L
Be					50.00000	mg/L
Cd					100.00000	mg/L
Co					50.00000	mg/L
Cr					50.00000	mg/L
Cu					50.00000	mg/L
Mn					50.00000	mg/L
Ni					100.00000	mg/L
Pb					100.00000	mg/L
V					50.00000	mg/L
Zn					100.00000	mg/L

*Needs
Reverification
Form, approved by QA
and Raw data*

Sample Name: analyte: B-0007@100 Acquired: 12/30/2014 16:46:12 Type: Unk

Method: 6500_025(v13) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment: Recertification

	99				102	92			100
Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .98898 ✓	.00145	.00668	.00392	.51084 ✓	.45837 ✓	.00057	.00725	1.0010 ✓
Stddev	.00265	.00021	.00461	.00020	.00575	.00534	.00499	.00282	.0000
%RSD	.26778	14.182	69.004	5.0628	1.1249	1.1660	874.54	38.813	.00233

#1	.98711	.00130	.00342	.00406	.51491	.46215	-.00296	.00925	1.0010
#2	.99085	.00159	.00994	.00378	.50678	.45459	.00410	.00526	1.0010

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.10000								
Low Limit	-.01000	103 ok 11514	100						

	105							98	
Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52456 ✓	W .51477 ✓	.50181 ✓	.01265	.12907	-.00305	.01042	.48976 ✓	.00013
Stddev	.00307	.00134	.00132	.00276	.04376	.00345	.00788	.00068	.00004
%RSD	.58602	.26101	.26297	21.831	33.903	113.06	75.611	1.3953	31.394

#1	.52673	.51572	.50088	.01461	.16001	-.00549	.01599	.48928	.00016
#2	.52238	.51382	.50274	.01070	.09813	-.00061	.00485	.49025	.00010

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

		103		106					
Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.28231	1.0331 ✓	.00147	1.0577 ✓	.00246	-.00058	-.00018	-.02192	-.04690
Stddev	.02349	.0001	.00058	.0074	.00155	.00219	.00275	.01088	.02328
%RSD	8.3221	.00823	39.622	.70015	62.840	378.16	1503.5	49.634	49.634

#1	.29892	1.0330	.00188	1.0630	.00355	.00097	.00176	-.02961	-.06336
#2	.26570	1.0332	.00106	1.0525	.00137	-.00212	-.00212	-.01422	-.03044

Check ?	Chk Pass								
High Limit									
Low Limit									

						98	98		
Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00058	.00020	-.00032	-.00038	-.00237	-.03570	.49452 ✓	.97853 ✓	.00177
Stddev	.00115	.00004	.00180	.00022	.00167	.01524	.00008	.00230	.00127
%RSD	197.81	19.306	570.27	58.378	70.376	42.692	.01696	.23478	71.985

#1	-.00139	.00017	-.00159	-.00022	-.00119	-.04648	.49458	.97690	.00087
#2	-.00023	.00023	.00096	-.00054	-.00355	-.02493	.49446	.98015	.00266

Check ?	Chk Pass								
High Limit									
Low Limit									

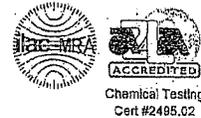
Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3179.9	46754.	5049.1
Stddev	8.8	60.	41.4
%RSD	.27756	.12731	.81940

#1	3173.7	46712.	5019.8
#2	3186.2	46796.	5078.3



SPEXertificate®

Certificate of Reference Material



Catalog Number: INT-B1

Lot No. 9-164YPY

Description: Analytes B

Matrix: 5% HNO₃

This ASSURANCE® Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for inorganic spectroscopic instrumentation such as ICP-OES, DCP, AA, ICP-MS, and XRF. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

The CRM is prepared from high purity single element concentrates of individual elements using Class A laboratory ware to give precise concentrations. See side 2 for details of certification.

Instrumental Analysis by ICP Spectrometer:

Analyte	Labeled	Measured	Uncertainty	SRM	Analyte	Labeled	Measured	Uncertainty	SRM
Ag	100 mg/L	101 mg/L	±0.5 mg/L	3151*	Be	50 mg/L	49.9 mg/L	±0.3 mg/L	3105a*
Cd	100 mg/L	101 mg/L	±0.5 mg/L	3108*	Co	50 mg/L	49.8 mg/L	±0.3 mg/L	3113*
Ni	100 mg/L	101 mg/L	±0.5 mg/L	3136*	Cr	50 mg/L	49.8 mg/L	±0.3 mg/L	3112a*
Pb	100 mg/L	100 mg/L	±0.5 mg/L	3128*	Cu	50 mg/L	50.0 mg/L	±0.3 mg/L	3114*
Zn	100 mg/L	100 mg/L	±0.5 mg/L	3168a*	Mn	50 mg/L	50.0 mg/L	±0.3 mg/L	3132*
Ba	50 mg/L	50.8 mg/L	±0.3 mg/L	3104a*	V	50 mg/L	50.5 mg/L	±0.3 mg/L	3165*

* - indicates NIST SRM

† - indicates SPEX CertiPrep CRM (when NIST SRM is not available)

SPEX CertiPrep Reference Multi: Lot# 7-166YP, 22-145JB

2432394
 ID: ANALYTES B_00007
 Exp: 12/30/14 Prep: SJS Opn: 12/17/13
 ICP ANALYTES B SPEX

Balances are calibrated regularly with weight sets traceable to NIST#s 32856, 32867 and others. This CRM is guaranteed stable and accurate to ±0.5% of the certified (measured) value. This includes uncertainty components due to preparation, measurement, homogeneity, short-term and long-term stability as well as transpiration loss. No measured concentration of any individual component exceeds ±2% of the labeled value. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: DEC 2013 Certifying Officer: [Signature]

Report of Certification

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001:2008, ISO 17025:2005, and ISO Guide 34:2009 quality system consistent with the following guides:

- ISO 9001: Quality management systems – Requirements – certified by UL-DQS
- ISO 17025: General requirements for the competence of testing and calibration laboratories – accredited by A2LA
- ISO Guide 34: General requirements for the competence of reference material producers – accredited by A2LA
- ISO Guide 31: Reference Materials – Contents of certificates and labels
- Guide To The Expression Of Uncertainty In Measurement 1997
- EURACHEM/CITAC Guide: Quantifying Uncertainty in Analytical Measurement – Second Edition
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- ISO/REMCO N280

Material Source:

All analytes and matrix materials are obtained and verified by SPEX CertiPrep from pre-qualified vendors as per ISO 9001:2008, ISO 17025:2005, and ISO Guide 34:2009 guidelines. Vendor identifications are proprietary, however sources of all materials used in the preparation and testing of SPEX CertiPrep CRMs are tracked and documented. For further assistance, please contact the Sales Support Department at crmsales@spexcsp.com.

Instructions for Use:

Primary usage of this CRM is in neat form or diluted serially with matrix of a purity at or greater than the purity of the original matrix solution. If dilution is required the diluent must be compatible with all certified analytes and contain stabilizers appropriate for the period of intended use. The CRM can also be used as a spike or with a spike, again with appropriate compatibility considerations. All solutions should be thoroughly mixed, by shaking, prior to use and never pipetted directly from the bottle. All surfaces that come in contact with the solution must be thoroughly cleaned and leached prior to use. Dilutions should be performed only with Class A volumetric glassware.

Method of Preparation:

Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, analytical instrumentation and personnel have been qualified prior to use. The highest purity acids applicable, 18 megohm, double deionized water, acid-leached triple-rinsed bottles (where appropriate), and Class A/calibrated volumetrics have been used in all preparations.

Homogeneity:

The homogeneity of the CRM has been confirmed by procedures consistent with ISO 17025:2005, ISO Guide 34:2009, and ASTM D6362-98 Appendix X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedure 4600-HOMOGEN-1A. Since the product is highly homogeneous, any sample size taken for analysis would be within the uncertainty budget. This is consistent with the intended use of the CRM.

Statistical Estimator and Confidence Limits:

The certified value 'X' listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = x \pm U$ where x = measured value, U = expanded uncertainty
 - $U = k u_c$ where $k=2$ is the coverage factor at the 95% confidence level
- U_c is obtained by combining the individual element standard uncertainty components u_i , and $u_c = \sqrt{\sum u_i^2}$

Certification Traveler Report:

All certified values reported were derived from the Traveler Report (SPEX CertiPrep's traceability documentation) identified by the lot number of this CRM. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further assistance, please contact the Sales Support Department at crmsales@spexcsp.com.

Legal Notice:

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SPEX CertiPrep[®]

Your Science is Our Passion.[®]

203 Norcross Ave, Metuchen, NJ 08840
www.spexcertiprep.com • E-mail: crmsales@spexcsp.com
Phone: 1-800-LAB-SPEX • Fax: 732-603-9647





SPEXertificate®

Certificate of Reference Material



Catalog Number: INT-B1

Lot No. 12-03YPY

Description: Analytes B

Matrix: 5% HNO₃

This ASSURANCE® Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for inorganic spectroscopic instrumentation such as ICP-OES, DCP, AA, ICP-MS, and XRF. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

The CRM is prepared from high purity single element concentrates of individual elements using Class A laboratory ware to give precise concentrations. See side 2 for details of certification.

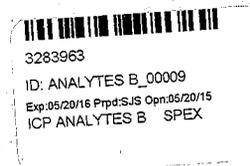
Instrumental Analysis by ICP Spectrometer:

Analyte	Labeled	Certified	Uncertainty	SRM	Analyte	Labeled	Certified	Uncertainty	SRM
Ag	100 µg/mL	99.9 µg/mL	±0.5 µg/mL	3151*	Be	50 µg/mL	49.9 µg/mL	±0.3 µg/mL	3105a*
Cd	100 µg/mL	99.2 µg/mL	±0.5 µg/mL	3108*	Co	50 µg/mL	50.0 µg/mL	±0.3 µg/mL	3113*
Ni	100 µg/mL	99.6 µg/mL	±0.5 µg/mL	3136*	Cr	50 µg/mL	50.1 µg/mL	±0.3 µg/mL	3112a*
Pb	100 µg/mL	101 µg/mL	±0.5 µg/mL	3128*	Cu	50 µg/mL	49.9 µg/mL	±0.3 µg/mL	3114*
Zn	100 µg/mL	99.2 µg/mL	±0.5 µg/mL	3168a*	Mn	50 µg/mL	49.9 µg/mL	±0.3 µg/mL	3132*
Ba	50 µg/mL	49.3 µg/mL	±0.3 µg/mL	3104a*	V	50 µg/mL	49.6 µg/mL	±0.3 µg/mL	3165*

* - indicates NIST SRM

† - indicates SPEX CertiPrep CRM (when NIST SRM is not available)

SPEX CertiPrep Reference Multi: Lot# 9-164YP



Balances are calibrated regularly with weight sets traceable to NIST#s 32856, 32867 and others. This CRM is guaranteed stable and accurate to ±0.5% of the certified (measured) value. This includes uncertainty components due to preparation, measurement, homogeneity, short-term and long-term stability as well as transpiration loss. No measured concentration of any individual component exceeds ±2% of the labeled value. This guarantee is valid for a period of one year from the date of certification only when the material is unopened and stored under ambient laboratory conditions.

Date of Certification: MAY - - 2015

Certifying Officer: *Larry Wifong*

Certificate of Analysis

PRODUCT:	1000 mg/L Hexavalent Chromium
CATALOG NUMBER:	019
LOT NUMBER:	290315
ISSUE DATE:	April 7, 2015
REVISION DATE:	Original
STARTING MATERIAL:	Potassium Dichromate ($K_2Cr_2O_7$)
CERTIFIED CONCENTRATION¹:	1000 mg/L
UNCERTAINTY²:	0.6%
MATRIX:	18 megohm deionized water
DENSITY:	0.9992 ± 0.0008 g/mL at 21.5°C and 766 mm Hg
TRACEABILITY³:	103%
NIST/SRM:	SRM 136f Potassium Dichromate
VERIFICATION METHOD:	Spectrophotometry
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.
2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation and internal analytical verification of the product by ERA, multiplied by a coverage factor which is equal to the student t factor at a 95% confidence interval at n-1 degrees of freedom. The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.
3. Traceability Recovery = ((% Recovery certified standard)/(% Recovery NIST SRM))*100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs.

This standard **expires 3/2018**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Tom Widera

ISO/IEC GUIDE 34:2009



REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005



CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

Certificate of Analysis List

For request number 571942

Catalog Number Entered	Lot Number Entered	Related Catalog Number	Related Lot Code	Description
1466442 1000	3176	N/A	N/A	Chromium Reference Standard Solution

Total Enclosures: 1



An ISO 9001 Certified Company

Certificate of Analysis

Page 1

COMMODITY: **Chromium Reference Standard Solution 1000**COMMODITY NUMBER: **14664-42**

MANUFACTURE DATE:

DATE OF ANALYSIS:

LOT NUMBER: **A3176****6/24/2013****6/24/2013**

<i>TEST</i>	<i>SPECIFICATIONS</i>	<i>RESULTS</i>
Hexavalent Chromium Concentration	995 to 1005 ppm	1002.0 ppm
pH of the solution	12 to 14	12.5

The expiration date is Jun 2018

The item 1466442 is traceable to NIST standards SRM 136f Potassium Dichromate LOT N/A.

Certified by _____

A handwritten signature in cursive script that reads "Scott Als".

Scott Als
Analytical Services Chemist



RICCA CHEMICAL COMPANY

Arlington, TX 76012
Pocomoke City, MD 21851
Batesville, IN 47006

<http://www.riccachemical.com>

1-888-GO-RICCA

customerservice@riccachemical.com

Certificate of Analysis

Bromide Standard, 1 mL = 1 mg Br-, 1000 ppm Br-

Lot Number: 4402289

Product Number: 1180

Expiration Date: JUL 2015

Manufacture Date: 2/10/2014

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Contains:

Name	CAS#	Grade
Sodium Bromide, NaBr	7647-15-6	High Purity
Water, Deionized, H2O	7732-18-5	ACS, ASTM D 1193 (Type I), EP, USP

Test Name	Assay Method	Specification	Result
Appearance	Clarity, Color, Odor	Clear, colorless, odorless	Passed Test
Certified Concentration	Based on accurate volumetric preparation	1000 ± 5 ppm Br	1000 ppm Br

Specification	Reference	Method Number
Bromide Solution, Standard (1 mL = 1 mg Br-)	ASTM	D 3869 D
Standard Bromide Solution, 1000 mg/L	APHA	4110 B
Bromide Stock Solution (1.00 mL = 1.00 mg Br-)	EPA (SW-846)	9056
Sodium Bromide Standard Solution, 1000 mg/L	ASTM	D 1246
Bromide Stock Solution (1.00 mL = 1.00 mg Br?)	ASTM	D 4327

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Shelf Life (unopened container):

Part Number	Shelf Life
1180-4	18 months
1180-8	18 months
1180-16	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

LaNelle Ohlhausen
Quality Assurance

This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials – Contents of Certificates and Labels."

To determine manufacture site using lot number, visit <http://www.riccachemical.com/Documents/lot.pdf>.

Certificate of Analysis

Chloride Standard, 1000 ppm Cl⁻ (0.0282 Normal)
Lot Number: 1410937

Product Number: 1955

Manufacture Date: 10/14/2014

Expiration Date: APR 2016

Name	CAS#	Grade
Sodium Chloride	7647-14-5	ACS
Water, Deionized	7732-18-5	ACS, ASTM D 1193 (Type I), EP, USP

Test	Specification	Result	NIST SRM#
Appearance, Clarity, Color, Odor	Clear, colorless, odorless	Passed Test	
Assay at 20 °C (traceable to NIST SRM 999), Titrimetric vs. Silver Nitrate (Potassium Chromate Indicator)	1000 ± 1 ppm Cl ⁻	1001 ppm Cl ⁻	

Specification	Reference
Chloride Solution Stock (1.00 mL = 1.00 mg chloride)	ASTM (D 5542)
Chloride Solution, Stock (1000 mg/L)	ASTM (D 512 C)
Standard Chloride Solution, 1000 mg/L	APHA (4110 B)
Stock Chloride Solution	APHA (4500-Cl- E)
Sodium Chloride Calibration Standard (1 µg Cl ⁻ /µL)	EPA (SW-846) (9023)
Sodium Chloride Calibration Standard (1 µg Cl ⁻ /µL)	EPA (SW-846) (9021)
Chloride Stock Solution (1.00 mL = 1.00 mg Cl ⁻)	EPA (SW-846) (9056)
Sodium Chloride, NaCl, stock standard solution	EPA (SW-846) (9057)
Chloride Calibration Stock Solution (1,000 mg/L Cl ⁻)	EPA (SW-846) (9212)
Chloride solution (1000 ppm)	TAPPI (T 700 om-93)
Chloride solution (1000 ppm)	TAPPI (T 699 om-87)
Sodium Chloride Solution, 1 mL = 1 mg Cl ⁻	ASTM (D 4458)
Chloride Stock Solution (1.00 mL = 1.00 mg Cl ⁻)	ASTM (D 4327)
Chloride Solution, Stock (1.00 mL = 1.00 mg Cl ⁻)	ASTM (D 5996)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1955-4	120 mL natural poly	18 months
1955-32	1 L natural poly	18 months
1955-8	250 mL natural poly	18 months
1955-1	4 L natural poly	18 months
1955-16	500 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Katie Schnur
Quality Control Manager

This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference
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Certificate of Analysis

Chloride Standard, 1000 ppm Cl⁻ (0.0282 Normal)

Lot Number: 1503977

Product Number: 1955

Manufacture Date: MAR 06, 2015

Expiration Date: AUG 2016

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Chloride	7647-14-5	ACS

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	Passed	
Assay (vs. Silver Nitrate/Potassium Chromate)	999-1001 ppm Cl ⁻	999 ppm Cl ⁻	999

Specification	Reference
Chloride Solution Stock (1.00 mL = 1.00 mg chloride)	ASTM (D 5542)
Chloride Solution, Stock (1000 mg/L)	ASTM (D 512 C)
Standard Chloride Solution, 1000 mg/L	APHA (4110 B)
Stock Chloride Solution	APHA (4500-Cl- E)
Sodium Chloride Calibration Standard (1 µg Cl ⁻ /µL)	EPA (SW-846) (9023)
Sodium Chloride Calibration Standard (1 µg Cl ⁻ /µL)	EPA (SW-846) (9021)
Chloride Stock Solution (1.00 mL = 1.00 mg Cl ⁻)	EPA (SW-846) (9056)
Sodium Chloride, NaCl, stock standard solution	EPA (SW-846) (9057)
Chloride Calibration Stock Solution (1,000 mg/L Cl ⁻)	EPA (SW-846) (9212)
Chloride solution (1000 ppm)	TAPPI (T 700 om-93)
Chloride solution (1000 ppm)	TAPPI (T 699 om-87)
Sodium Chloride Solution, 1 mL = 1 mg Cl ⁻	ASTM (D 4458)
Chloride Stock Solution (1.00 mL = 1.00 mg Cl ⁻)	ASTM (D 4327)
Chloride Solution, Stock (1.00 mL = 1.00 mg Cl ⁻)	ASTM (D 5996)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1955-4	120 mL natural poly	18 months
1955-32	1 L natural poly	18 months
1955-8	250 mL natural poly	18 months
1955-1	4 L natural poly	18 months
1955-16	500 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Katie Schnur

Katie Schnur
Quality Control Manager

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Ph: 412-826-5230 | Fax: 724-473-0647 | www.labchem.com

CERTIFICATE OF ANALYSIS

Description: CHLORIDE STANDARD, 1000ppm (1mL = 1mg) (0.0282N)

Catalog Number: LC13000

Mfg Date: 09/17/2014

Lot Number: D255-04

Expiration Date: 09/17/2016

ANALYTICAL SECTION

Test	Specification	Test Result
Appearance	clear, colorless solution	Pass Test
Concentration ppm	1000ppm +/- 5ppm	997ppm
Concentration mg Cl/ml	1.000 +/- 0.005 mg Cl/mL	0.997 mg Cl/mL
Normality	0.0282N +/- 0.0002N	0.0281N
Traceable to NIST	Potassium Chloride	999b

Submitted By: Greg Albright, Chemist Supervisor

An ISO9001:2008 certified company. Registration # 0306-01

12/17/2014 2:07:11 PM

Form #17.12 06/19/2012

Page 1 of 1

Certificate of Analysis

Fluoride Standard, 1 mL = 1 mg F-, 1000 ppm F-

Lot Number: 4405502

Product Number: 3173

Expiration Date: NOV 2015

Manufacture Date: 5/14/2014

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

The concentration is confirmed by Fluoride ISE and is certified traceable to NIST SRM 2203.

Contains:

Name	CAS#	Grade
Sodium Fluoride, NaF	7681-49-4	High Purity
Water, Deionized, H ₂ O	7732-18-5	ACS, ASTM D 1193 (Type I), EP, USP

Test Name	Assay Method	Specification	Result
Appearance	Clarity, Color, Odor	Clear, colorless, odorless	Passed Test
Certified Concentration	Based on accurate volumetric preparation	1,000 ± 5 ppm F-	1,000 ppm F-

Specification	Reference	Method Number
Fluoride Solution, Stock (1.00 mL = 1.00 mg F)	ASTM	D 5542
Fluoride Stock Solution (1.00 mL = 1.00 mg F-)	EPA (SW-846)	9056
Fluoride Calibration Stock Solution (1,000 mg/L F-)	EPA (SW-846)	9214
Stock Solution, 1.0 mL = 1.0 mg F	EPA	340.3
Fluoride Solution, Stock (1.00 mL = 1.00 mg F)	ASTM	D 5996
Fluoride Stock Solution (1.00 mL = 1.00 mg F?)	ASTM	D 4327
Fluoride Stock Standard Solution (1 mg of F in 1 mL)	ACS	N/A

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Shelf Life (unopened container):

Part Number	Shelf Life
3173-4	18 months
3173-32	18 months
3173-8	18 months
3173-16	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



LaNelle Ohlhausen
 Quality Assurance

This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

To determine manufacture site using lot number, visit <http://www.riccachemical.com/Documents/lot.pdf>.



1 Reagent Lane
Fairlawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2000 standard by DNV Certificate number CERT-08052-2006-AQ-HOU-ANAB

This is to certify that units of the above mentioned lot number were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	S271	Mfg. Date	5/20/2009
Lot Number	091363		
Description SODIUM CHLORIDE, CERTIFIED A.C.S.			
Country of Origin	United States		
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	FINE WHITE CRYSTALS
ASSAY	%	>= 99.0	99.7
BARIUM (Ba)	PASS/FAIL	= PASS TEST	PASS TEST
BROMIDE	%	<= 0.01	<0.010
CALCIUM	%	<= 0.002	0.0004
CHLORATE & NITRATE	%	<= 0.003	0.0003
HEAVY METALS (as Pb)	ppm	<= 5	<5.0
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.005	0.001
IODIDE	%	<= 0.002	<0.0020
IRON (Fe)	ppm	<= 2	<2.0
MAGNESIUM	%	<= 0.001	0.0005
PH 5% SOLN @ 25 DEG C		Inclusive Between 5.0 9.0	5.6
PHOSPHATE (PO4)	ppm	<= 5	<5.0
POTASSIUM (K)	%	<= 0.005	0.003
SULFATE (SO4)	%	<= 0.004	<0.0040

Residual Solvents	No Class 1, Class 2, or Class 3 solvents are used in the manufacturing, processing, or subsequent handling of this product.
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Edgar E. Hane

Lab Manager Fairlawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.



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 Fairlawn, NJ 07410
 201.796.7100 tel
 201.796.1329 fax

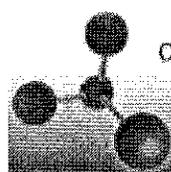
Certificate of Analysis

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Catalog Number	S347	Mfg. Date	4/13/2004 0:0:0
Lot Number	041304	Sample Id	S347..041304.100
Product Description	SODIUM NITRITE, A.C.S.		

Result Name	Units	Specifications	Test Value
INSOLUBLE MATTER	%	0.01 Maximum	0.0010
IDENTIFICATION	PASS/FAIL	Pass test	PASS
HEAVY METALS(AS Pb)	%	0.001 Maximum	0.0004
CHLORIDE	%	0.005 Maximum	0.0040
SULFATE (SO4)	%	0.01 Maximum	0.0060
POTASSIUM	%	0.005 Maximum	0.00040
ASSAY	%	97 Minimum	99.7000
APPEARANCE	REPORT	Yellow-white crystals	YELLOWISH WHITE FINE CRYSTALS
IRON	%	0.001 Maximum	0.00020
CALCIUM IN %	%	0.01 Maximum	0.0002



CERTIFIED BY

Edgar E. Hess

Lab Manager Fair Lawn

Joel Boland

Lab Manager BPF

Note: The date listed is valid for all package sizes of this lot of product, expressed as an extension of the catalog number listed above. If there are any questions with this certificate, please contact your account manager.



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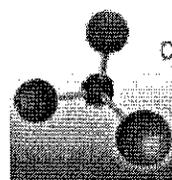
Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2000 standard by DNV Certificate number CERT-08052-2006-AQ-HOU-ANAB

This is to certify that units of the above mentioned lot number were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	S343	Mfg. Date	10/16/2003 0:0:0
Lot Number	035600	Sample Id	S343..035600.B1.
Product Description	SODIUM NITRATE, A.C.S.		

Result Name	Units	Specifications	Test Value
NITRITE	%	0.001 Maximum	<0.00010
MAGNESIUM IN %	%	0.002 Maximum	0.0002
IRON (Fe)	PPM	3 Maximum	0.600
IODATE (IO3) IN PPM	PPM	5 Maximum	<0.5000
INSOLUBLE MATTER	%	0.005 Maximum	0.0010
IDENTIFICATION	PASS/FAIL	Pass test	PASS
PHOSPHATE (PO4)	PPM	5 Maximum	4.000
CHLORIDE	%	0.001 Maximum	0.0010
CALCIUM IN %	%	0.005 Maximum	0.0008
ASSAY	%	99 Minimum	100.1000
APPEARANCE	REPORT	Colorless crystals	WHITE FINE CRYSTALS
SULFATE (SO4)	%	0.003 Maximum	0.0030
PH 5% SOLN @ 25DEG C		5.5 to 8.3	5.50
HEAVY METALS(AS Pb)	PPM	5 Maximum	1.70



CERTIFIED BY

Selgon E Hess
 Lab Manager Fair Lawn

Joel Boland
 Lab Manager BPF

Note: The date listed is valid for all package sizes of this lot of product, expressed as an extension of the catalog number listed above. If there are any questions with this certificate, please contact your account manager at 201.796.7100.

Certificate of Analysis

Nitrite Nitrogen Standard, 1000 ppm N (3285 ppm NO₂)
Lot Number: 2503729

Product Number: R5444900

Manufacture Date: MAR 11, 2015

Expiration Date: SEP 2015

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Nitrite	7758-09-0	ACS

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	Passed	
Assay (vs. Potassium Permanganate)	995-1005 ppm N	1002 ppm N	40

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
R5444900-120C	120 mL amber glass	6 months
R5444900-500C	500 mL amber glass	6 months

Recommended Storage: 2°C - 8°C (36°F - 46°F)



Katie Schnur
Quality Control Manager

This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

Certificate of Analysis

Nitrate Nitrogen Standard, 1000 ppm N (4427 ppm NO₃)
Lot Number: 2406477

Product Number: 5459

Manufacture Date: 6/3/2014

Expiration Date: NOV 2015

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Chloroform (Trichloromethane)	67-66-3	ACS
Potassium Nitrate	7757-79-1	High Purity
Water, Deionized	7732-18-5	ACS, ASTM D 1193 (Type I), EP, USP

Test	Specification	Result	NIST SRM#
Appearance, Clarity, Color, Odor	Clear, colorless, odorless	Passed Test	
Certified Concentration, Based on accurate volumetric preparation	1000 ± 5 ppm N	1000 ppm N	

Specification	Reference
Nitrate Solution, Stock (1.0 mL = 1.0 mg NO ₃ -N)	ASTM (D 3867 A)
Nitrate Solution, Stock (1.0 mL = 1.0 mg NO ₃ -N)	ASTM (D 3867 B)
Stock Nitrate Solution: 1 mL = 1.0 mg NO ₃ -N	EPA (353.2)
Stock Nitrate Solution: 1.0 mL = 1.00 mg NO ₃ -N	EPA (353.3)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5459-4	120 mL natural poly	18 months
5459-32	1 L natural poly	18 months
5459-16	500 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



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To determine manufacture site using lot number, visit <http://www.riccachemical.com/Documents/lot.pdf>.

Certificate of Analysis

PRODUCT:	1000 mg/L Nitrite as N (NO ₂ -N)
CATALOG NUMBER:	053 -125 mL; 990 - 500 mL
LOT NUMBER:	030115
ISSUE DATE:	January 12, 2015
REVISION DATE:	Original
STARTING MATERIAL:	Sodium Nitrite (NaNO ₂)
CERTIFIED CONCENTRATION¹:	1000 mg/L
UNCERTAINTY²:	0.6%
MATRIX:	18 megohm deionized water
DENSITY:	1.0008 ± 0.0008 g/mL at 19.5°C and 768 mm Hg
TRACEABILITY³:	NA
NIST/SRM:	SRM not available
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.
2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation and internal analytical verification of the product by ERA, multiplied by a coverage factor which is equal to the student t factor at a 95% confidence interval at n-1 degrees of freedom. The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.
3. Traceability Recovery = ((% Recovery certified standard)/(% Recovery NIST SRM))*100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs.

This standard **expires 1/2017**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Tom Widera





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CERTIFICATE OF ANALYSIS

Description: NITRATE (NITROGEN) STANDARD, 1000ppm (1mL = 1mg N)

Catalog Number: LC17900

Mfg Date: 06/17/2013

Lot Number: C163-25

Expiration Date: 06/17/2015

ANALYTICAL SECTION

Test	Specification	Test Result
Appearance	clear, colorless solution	Pass Test
Concentration ppm N	1000ppm +/- 10ppm	1007 ppm
Concentration mg N/mL	1.000 +/- 0.010 mg N/mL	1.007 mg/mL
Traceable to NIST	Potassium Nitrate	193

Submitted By: Greg Albright, Chemist Supervisor

An ISO9001:2008 certified company. Registration # 0306-01

06/18/2013 7:26:30 AM

Form #17.12 06/19/2012

Page 1 of 1



RICCA CHEMICAL COMPANY

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Pocomoke City, MD 21851
Batesville, IN 47006

<http://www.riccachemical.com>

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customerservice@riccachemical.com

Certificate of Analysis

Phosphorus AA Standard, 1 mL = 1 mg P (1,000 ppm P)

NH₄H₂PO₄ in H₂O

Lot Number: 4405320

Product Number: AP1KW

Expiration Date: APR 2016

Manufacture Date: 5/8/2014

This is a single element solution that was prepared volumetrically to contain the certified value reported. The uncertainty associated with the certified value is the sum of the estimated errors due to the purity of the raw material, the volumetric preparation of the solution, and transpiration of the solution through the container wall.

The final solution concentration is confirmed by AA, ICP, or ICP-MS, and is traceable to NIST Standard Reference Material 3139.

This product number replaces 5857 as of 2007.

Contains:

Name	CAS#	Grade
Ammonium Dihydrogen Phosphate, NH ₄ H ₂ PO ₄	7722-76-1	High Purity
Water, Deionized, H ₂ O	7732-18-5	ACS, ASTM D 1193 (Type I)

Test Name	Assay Method	Specification	Result
Appearance	Clarity, Color, Odor	Clear, colorless, odorless	Passed Test
Certified Concentration	Based on accurate volumetric preparation	1000 ± 5 ppm P	1000 ppm P

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Shelf Life (unopened container):

Part Number	Shelf Life
AP1KW-100	24 months
AP1KW-500	24 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

LaNelle Ohlhausen
Quality Assurance

This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

To determine manufacture site using lot number, visit <http://www.riccachemical.com/Documents/lot.pdf>.

Certificate of Analysis

Sulfate Standard, 1000 ppm SO₄²⁻
Lot Number: 1410971

Product Number: 8112

Manufacture Date: 10/16/2014

Expiration Date: APR 2016

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Sodium Sulfate	7757-82-6	ACS
Water, Deionized	7732-18-5	ACS, ASTM D 1193 (Type D), EP, USP

Test	Specification	Result	NIST SRM#
Appearance, Clarity, Color, Odor	Clear, colorless, odorless	Passed Test	
Certified Concentration, Based on accurate volumetric preparation	1000 ± 5 ppm SO ₄ ²⁻	1000 ppm SO ₄ ²⁻	

Specification	Reference
Sulfate Solution Stock (1.00 mL = 1.00 mg SO ₄)	ASTM (D 5542)
Sulfate Stock Solution, 1 mL = 1 mg SO ₄	EPA (SW-846) (9036)
Sulfate Stock Solution (1.00 mL = 1.00 mg SO ₄ ²⁻)	EPA (SW-846) (9056)
Sulfate solution (1000 ppm)	TAPPI (T 699 om-87)
Sulfate Stock Solution, 1 mL = 1 mg SO ₄ ²⁻	EPA (375.2)
Sulfate Solution, Stock (1.00 mL = 1.00 mg SO ₄)	ASTM (D 5996)
Sulfate Stock Solution (1.00 mL = 1.00 mg SO ₄ ²⁻)	ASTM (D 4327)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
8112-4	120 mL natural poly	18 months
8112-32	1 L natural poly	18 months
8112-8	250 mL natural poly	18 months
8112-16	500 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Katie Schnur
Quality Control Manager

This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

Certificate of Analysis

Sulfate Standard, 1000 ppm SO₄²⁻
Lot Number: 1502814

Product Number: 8112

Manufacture Date: FEB 16, 2015

Expiration Date: JUL 2016

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Sulfate Anhydrous	7757-82-6	ACS

Test	Specification	Result
Appearance	Colorless liquid	Passed
Sulfate (SO ₄)	995-1005 ppm	1000 ppm

Specification	Reference
Sulfate Solution Stock (1.00 mL = 1.00 mg SO ₄)	ASTM (D 5542)
Sulfate Stock Solution, 1 mL = 1 mg SO ₄	EPA (SW-846) (9036)
Sulfate Stock Solution (1.00 mL = 1.00 mg SO ₄ ²⁻)	EPA (SW-846) (9056)
Sulfate solution (1000 ppm)	TAPPI (T 699 om-87)
Sulfate Stock Solution, 1 mL = 1 mg SO ₄	EPA (375.2)
Sulfate Solution, Stock (1.00 mL = 1.00 mg SO ₄)	ASTM (D 5996)
Sulfate Stock Solution (1.00 mL = 1.00 mg SO ₄ ²⁻)	ASTM (D 4327)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
8112-4	120 mL natural poly	18 months
8112-32	1 L natural poly	18 months
8112-8	250 mL natural poly	18 months
8112-16	500 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Katie Schnur
Quality Control Manager

This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

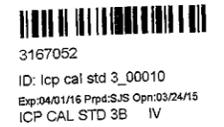
1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number 010105).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
 Catalog Number: STLDEN-STD-3B
 Lot Number: H2-MEB541066
 Matrix: 5% (v/v) HNO3
 Value / Analyte(s): 10 000 µg/mL ea:
 K,
 4 000 µg/mL ea:
 Mg,
 1 000 µg/mL ea:
 Ca, Na,
 500 µg/mL ea:
 Fe,
 200 µg/mL ea:
 Li, P,
 100 µg/mL ea:
 Ag, Al, B, Ba,
 Be, Cd, Co, Cr3,
 Cu, Mn, Ni, Sr,
 V, Zn



3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	100.0 ± 0.7 µg/mL	Barium, Ba	100.0 ± 0.6 µg/mL
Beryllium, Be	100.0 ± 0.7 µg/mL	Boron, B	100.0 ± 0.7 µg/mL
Cadmium, Cd	100.0 ± 0.6 µg/mL	Calcium, Ca	1 000 ± 4 µg/mL
Chromium+3, Cr3	100.0 ± 0.5 µg/mL	Cobalt, Co	100.0 ± 0.5 µg/mL
Copper, Cu	100.0 ± 0.7 µg/mL	Iron, Fe	500.0 ± 2.3 µg/mL
Lithium, Li	200.0 ± 1.3 µg/mL	Magnesium, Mg	4 000 ± 19 µg/mL
Manganese, Mn	100.0 ± 0.5 µg/mL	Nickel, Ni	100.0 ± 0.5 µg/mL
Phosphorus, P	200.0 ± 1.0 µg/mL	Potassium, K	10 000.0 ± 40.0 µg/mL
Silver, Ag	100.0 ± 0.6 µg/mL	Sodium, Na	1 000 ± 4 µg/mL
Strontium, Sr	100.0 ± 0.6 µg/mL	Vanadium, V	100.0 ± 0.5 µg/mL
Zinc, Zn	100.0 ± 0.6 µg/mL		

Certified Density: 1.072 g/mL (measured at 20 ± 1 °C)

Assay Information:

Certificate of Analysis



2824137
ID: Icp ICVH_00163
Exp:08/07/15 Prod:SJS Opr:08/15/14
ICP ICVH HP

Product Description:

Name: ICVH
Part Number: SM-606-125
Lot Number: 1421732
Matrix: 5% HNO₃
Purity: 99.964% - 99.9995%

Certified Values:

Element	($\mu\text{g/mL}$)	SRM ID	SRM Lot#	Element	($\mu\text{g/mL}$)	SRM ID	SRM Lot#
Al	4000 \pm 20	3101a	060502	Th	300.0 \pm 1.8	3159	*
Fe	8000 \pm 40	3126a	*	U	500.0 \pm 2.5	3164	080521
Na	4000 \pm 20	3152a	120715				

The Certified values are based on gravimetric and volumetric preparation, and verified against SRM 3100 series developed by National Institute of Standards and Technology (NIST) via inductively coupled plasma optical emission spectrometry (ICP-OES) using an internal laboratory developed method. The uncertainty in the certified value is calculated for a 95% confidence interval and coverage factor k is about 2

* Refer to Traceability Information, Section d

Preparation Information:

The standard is generally prepared from single element standard solutions that are ISO Guide 34 certified reference materials. Highest purity source materials were purchased from qualified vendors per ISO 9001:2008 guidelines and assayed by ICP-OES for conformity prior to use. Sub-boiling distilled high-purity acid has been used to place the materials in solution and to stabilize the standard. The matrix is as noted above in 18 megaohm deionized water.

Traceability Information:

The traceability of this standard is maintained through an unbroken chain of comparisons to appropriate standards with suitable procedure and measurement uncertainties. The maintenance of the base and derived units of International System of Units (SI) with traceability of measurement results (contemporary metrology) to SI ensures their comparability over time as follows.

a. Standard Weight and Analytical Balance

The standard weights (NBS weights Inventory No 20231A) are calibrated every two years by South Carolina Metrology Laboratory that is a participant in "NIST Weights and Measures Measurement Assurance Program" with a certificate of measurement traceability to NIST primary standards.

The balances are calibrated yearly by the ISO 17025 accredited metrology service, and are verified weekly by an in-house method using standard weights.

b. Volumetric Device

The calibration of volumetric vessels is checked annually using the ASTM method E542

Lot No.: 1421732

Rev. No.: 3.2.0

Page 1 of 2

High-Purity Standards is certified to ISO 9001:2008 and accredited to ISO/IEC 17025:2005 and ISO Guide 34:2009.

c. **Thermometer**

The standard thermometers are calibrated every year by the ISO 17025 accredited metrology service. The thermometers used in-house are verified against the standard thermometers yearly.

d. **Calibration Standards**

The Calibration Standards are traceable to SRM 3100 Series Spectrometric Standard Solutions or second sources.

Packaging and Storage Conditions:

The standard is packaged in a pre-cleaned polyethylene bottle. To maintain the integrity of this product, the solution should be kept tightly capped and stored under normal laboratory conditions.

Refer to Material Safety Datasheet (MSDS) for hazardous information.

Expiration Information:

The expiry date is guaranteed to be valid for twelve months from the shipping date provided. For this reason, standards from the same lot may have different expiration dates.

Preparation Date: August 5, 2014
Shipped Date: August 7, 2014
Expiration Date: August 7, 2015
Certificate Issue Date: August 6, 2014

Quality Information:



**ISO/IEC 17025:2005 Accreditation
Certificate Number AT-1529**

A handwritten signature in cursive script, appearing to read "Angel Sellers".

**Angel Sellers
Quality Manager**

NOTICE: HPS products are intended for laboratory use only. All products should be handled and used by trained professional personnel. The responsibility for the safe handling and use of these products rests solely with the buyer and/or user. The data and information as stated was furnished by the manufacturer of the product. The information provided in this certificate pertains only to the lot number specified. None of the information provided in this certificate may be used, reproduced or transmitted in any form or by any means without written approval from High Purity Standards.

Lot No.: **1421732**

Rev. No.: 3.2.0

Page 2 of 2

High-Purity Standards is certified to ISO 9001:2008 and accredited to ISO/IEC 17025:2005 and ISO Guide 34:2009.

Sample Name: icvh verf@10 Acquired: 8/16/2014 2:18:10 Type: Unk

Method: 6500_026(v14) Mode: CONC Corr. Factor: 1.000000

User: Scottsa Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01110	R 360.39 ✓	.00669	.00294	.00190	-.00084	F -.07611	F -.13870	W -.00546
Stddev	.00108	5.30	.00590	.00066	.00053	.00001	.00086	.00481	.00001
%RSD	9.7339	1.4707	88.173	22.610	27.902	1.1402	1.1301	3.4710	.12630

#1	.01034	356.64	.01086	.00341	.00153	-.00085	-.07550	-.13530	-.00545
#2	.01187	364.14	.00252	.00247	.00228	-.00083	-.07672	-.14211	-.00546

Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Warn					
High Limit							100.00	2500.0	2.0000
Low Limit							-.02000	-.10000	-.00500

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00724	.00176	-.00365	W 710.33	-.08081	.00820	W -.19949	.01839	W -.01059
Stddev	.00025	.00039	.00029	10.87	.01394	.00043	.00465	.00004	.00054
%RSD	3.5124	21.945	7.9032	1.5307	17.252	5.2273	2.3300	.21972	5.0961

#1	.00706	.00149	-.00344	702.64	-.09067	.00790	-.19620	.01842	-.01021
#2	.00742	.00203	-.00385	718.02	-.07095	.00851	-.20277	.01836	-.01097

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Warn
High Limit				500.00			500.00		2.0000
Low Limit				40.000			-.10000		-.01000

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	395.28 ✓	-.00430	.01820	.00715	-.16147	.02187	F -.02877	-.00242	.00945
Stddev	5.92	.00047	.00115	.00031	.00948	.00191	.00248	.00813	.00058
%RSD	1.4972	11.001	6.3194	4.2816	5.8718	8.7130	8.6034	335.84	6.1443

#1	391.10	-.00464	.01901	.00694	-.15477	.02322	-.03052	-.00817	.00986
#2	399.47	-.00397	.01739	.00737	-.16818	.02052	-.02702	.00333	.00904

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit							50.000		
Low Limit							-.01000		

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00121	28.966 ✓	.14584	-.00637	W 48.713	.00689	.26636	.18395
Stddev	.00001	.082	.00018	.00091	.162	.00066	.05459	.01449
%RSD	.74950	.28230	.12307	14.230	.33257	9.5075	20.493	7.8789

#1	.00121	28.908	.14571	-.00573	48.598	.00643	.30496	.17371
#2	.00120	29.024	.14597	-.00701	48.828	.00736	.22777	.19420

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit					45.000			
Low Limit					-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4950.4	61386.	5431.9
Stddev	5.8	244.	36.6
%RSD	.11635	.39747	.67336

#1	4946.4	61213.	5406.0
#2	4954.5	61558.	5457.8

Certificate of Analysis

Product Description:

Name: Intrepid ICVL
Part Number: SM-606-062
Solution A
Lot Number: 1430702
Matrix: 5% HNO₃
Purity: 99.98% - 99.9999%



2984652
ID: Icp ICVL A_00008
Exp: 11/05/15 Pripd: SJS Opt: 11/11/14
ICP ICVL SOLUTION A H

Certified Values:

Element	(mg/L)	SRM ID	SRM Lot#	Element	(mg/L)	SRM ID	SRM Lot#
Al	25.00 ± 0.13	3101a	060502	Li	25.00 ± 0.15	3129a	100714
As	25.00 ± 0.25	3103a	100818	Mg	1000 ± 5	3131a	050302
Ba	25.00 ± 0.15	3104a	070222	Mn	25.00 ± 0.25	3132	050429
Be	25.00 ± 0.25	3105a	090514	Ni	25.00 ± 0.13	3136	120619
B	25.00 ± 0.13	3107	070514	K	2000 ± 10	*	
Cd	25.00 ± 0.13	3108	130116	Se	50.0 ± 0.5	3149	100901
Ca	200 ± 1	3109a	050825	Na	200 ± 1	3152a	120715
Cr	25.00 ± 0.13	3112a	030730	Sr	25.00 ± 0.13	3153a	990906
Co	25.00 ± 0.13	3113	000630	Tl	50.00 ± 0.25	3158	993012
Cu	25.00 ± 0.13	3114	121207	V	25.00 ± 0.15	3165	992706
Fe	25.00 ± 0.13	*		Zn	25.00 ± 0.13	3168a	120629
Pb	25.00 ± 0.15	3128	101026				

The Certified values are based on gravimetric and volumetric preparation, and verified against SRM 3100 series developed by National Institute of Standards and Technology (NIST) via inductively coupled plasma optical emission spectrometry (ICP-OES) using an internal laboratory developed method. The uncertainty in the certified value is calculated for a 95% confidence interval and coverage factor *k* is about 2

* Refer to Traceability Information, Section d

Preparation Information:

The standard is generally prepared from single element standard solutions that are ISO Guide 34 certified reference materials. Highest purity source materials were purchased from qualified vendors per ISO 9001:2008 guidelines and assayed by ICP-OES for conformity prior to use. Sub-boiling distilled high-purity acid has been used to place the materials in solution and to stabilize the standard. The matrix is as noted above in 18 megaohm deionized water.

Traceability Information:

The traceability of this standard is maintained through an unbroken chain of comparisons to appropriate standards with suitable procedure and measurement uncertainties. The maintenance of the base and derived

Lot No.: 1430702

Rev. No.: 3.2.0

Page 1 of 2

High-Purity Standards is certified to ISO 9001:2008 and accredited to ISO/IEC 17025:2005 and ISO Guide 34:2009.

units of International System of Units (SI) with traceability of measurement results (contemporary metrology) to SI ensures their comparability over time as follows.

a. **Standard Weight and Analytical Balance**

The standard weights (NBS weights Inventory No 20231A) are calibrated every two years by South Carolina Metrology Laboratory that is a participant in "NIST Weights and Measures Measurement Assurance Program" with a certificate of measurement traceability to NIST primary standards.

The balances are calibrated yearly by the ISO 17025 accredited metrology service, and are verified weekly by an in-house method using standard weights.

b. **Volumetric Device**

The calibration of volumetric vessels is checked annually using the ASTM method E542

c. **Thermometer**

The standard thermometers are calibrated every year by the ISO 17025 accredited metrology service. The thermometers used in-house are verified against the standard thermometers yearly.

d. **Calibration Standards**

The Calibration Standards are traceable to SRM 3100 Series Spectrometric Standard Solutions or second sources.

Packaging and Storage Conditions:

The standard is packaged in a pre-cleaned polyethylene bottle. To maintain the integrity of this product, the solution should be kept tightly capped and stored under normal laboratory conditions.

Refer to Material Safety Datasheet (MSDS) for hazardous information.

Expiration Information:

The expiry date is guaranteed to be valid for twelve months from the shipping date provided. For this reason, standards from the same lot may have different expiration dates.

Preparation Date: November 3, 2014

Shipped Date: November 5, 2014

Expiration Date: November 5, 2015

Certificate Issue Date: November 3, 2014

Quality Information:



ISO/IEC 17025:2005 Accreditation
Certificate Number AT-1529

A handwritten signature in cursive script that reads "Angel Sellers".

Angel Sellers
Quality Manager

NOTICE: HPS products are intended for laboratory use only. All products should be handled and used by trained professional personnel. The responsibility for the safe handling and use of these products rests solely with the buyer and/or user. The data and information as stated was furnished by the manufacturer of the product. The information provided in this certificate pertains only to the lot number specified. None of the information provided in this certificate may be used, reproduced or transmitted in any form or by any means without written approval from High Purity Standards.

Lot No.: **1430702**

Rev. No.: 3.2.0

Page 2 of 2

High-Purity Standards is certified to ISO 9001:2008 and accredited to ISO/IEC 17025:2005 and ISO Guide 34:2009.

Sample Name: 2984652icvl a @10 Acquired: 11/13/2014 18:45:51 Type: Unk
 Method: 6500_026(v6) Mode: CONC Corr. Factor: 1.000000
 User: Scottsa Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	228.061 {451}	317.933 {106}	228.802 {447}	228.616 {447}	205.552 {464}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0046	2.5540	2.5940	2.6264	2.6162	2.6501	0.0045	20.920	W 2.6302	2.5574	2.5432
Stddev	.00116	.0039	.0048	.0102	.0055	.0038	.00184	.030	.0049	.0043	.0018
%RSD	250.97	.15439	.18607	.38756	.20920	.14364	410.50	.14195	.18750	.17011	.07142
#1	-.00128	2.5512	2.5906	2.6192	2.6124	2.6474	-.00085	20.899	2.6267	2.5543	2.5419
#2	.00036	2.5568	2.5974	2.6336	2.6201	2.6528	.00174	20.941	2.6337	2.5604	2.5445
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass				
High Limit									2.0000		
Low Limit									-.00500		
Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Line	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.5354	2.6511	W 212.20	2.6336	104.18	2.5930	-.00053	21.386	2.5164	-.00367	2.5903
Stddev	.0040	.0117	.34	.0094	.09	.0014	.00057	.685	.0024	.00262	.0028
%RSD	.15891	.43946	.15966	.35682	.08350	.05592	108.33	3.2012	.09651	71.476	.10971
#1	2.5326	2.6429	211.96	2.6270	104.24	2.5940	-.00012	20.902	2.5147	-.00553	2.5883
#2	2.5383	2.6593	212.44	2.6403	104.12	2.5920	-.00093	21.870	2.5182	-.00182	2.5923
Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			100.00								
Low Limit			-.50000								
Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924
Line	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.04680	-.00093	W 5.1580	.04774	.00036	2.6116	.09766	.00426	W 5.0722	-.00564	2.6531
Stddev	.00633	.00023	.0006	.01833	.00134	.0056	.00049	.00021	.0070	.04454	.0018
%RSD	13.522	25.177	.01238	38.397	373.75	.21558	.49780	4.8611	.13821	789.06	.06700
#1	-.04232	-.00077	5.1575	.06070	.00130	2.6076	.09731	.00411	5.0672	-.03714	2.6543
#2	-.05127	-.00110	5.1584	.03478	-.00059	2.6155	.09800	.00440	5.0771	.02585	2.6518
Check ?	None	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass
High Limit			5.0000						5.0000		
Low Limit			-.00500						-.01000		
Elem	Zn2062	Zr3391									
Line	206.200 {163}	339.198 {99}									
Units	ppm	ppm									
Avg	2.6108	-.00209									
Stddev	.0042	.00005									
%RSD	.15945	2.4553									
#1	2.6079	-.00212									
#2	2.6138	-.00205									
Check ?	Chk Pass	Chk Pass									
High Limit											
Low Limit											
Int. Std.	Y_2243	Y_3600	Y_3774								
Line	224.306 {450}	360.073 {94}	377.433 {89}								
Units	Cts/S	Cts/S	Cts/S								
Avg	3983.1	60832.	4448.0								
Stddev	10.5	102.	.1								
%RSD	.26264	.16819	.00331								
#1	3975.7	60904.	4447.9								
#2	3990.5	60760.	4448.1								

b. **Volumetric Device**

The calibration of volumetric vessels is checked annually using the ASTM method E542

c. **Thermometer**

The standard thermometers are calibrated every year by the ISO 17025 accredited metrology service. The thermometers used in-house are verified against the standard thermometers yearly.

d. **Calibration Standards**

The Calibration Standards are traceable to SRM 3100 Series Spectrometric Standard Solutions or second sources.

Packaging and Storage Conditions:

The standard is packaged in a pre-cleaned polyethylene bottle. To maintain the integrity of this product, the solution should be kept tightly capped and stored under normal laboratory conditions.

Refer to Material Safety Datasheet (MSDS) for hazardous information.

Expiration Information:

The expiry date is guaranteed to be valid for twelve months from the shipping date provided. For this reason, standards from the same lot may have different expiration dates.

Preparation Date: March 18, 2014

Shipped Date: March 20, 2014

Expiration Date: March 20, 2015

Certificate Issue Date: March 19, 2014

Quality Information:



ISO/IEC 17025:2005 Accreditation
Certificate Number AT-1529

A handwritten signature in cursive script that reads 'Angel Sellers'.

Angel Sellers
Quality Manager

NOTICE: HPS products are intended for laboratory use only. All products should be handled and used by trained professional personnel. The responsibility for the safe handling and use of these products rests solely with the buyer and/or user. The data and information as stated was furnished by the manufacturer of the product. The information provided in this certificate pertains only to the lot number specified. None of the information provided in this certificate may be used, reproduced or transmitted in any form or by any means without written approval from High Purity Standards.

Lot No.: 1407732
Rev. No.: 3.2.0
Page 2 of 2

ISAB STD 1

ICP ISAB STD1



P.O. Box 41727
Charleston, SC 29423
Phone (843) 767-7900
Fax (843) 767-7906



2579930
ID: ICP ISAB STD1_00006
Exp:09/20/15 Prpd:SJS Opr:04/18/14
ICAP ICSAB STD 1 SOL A

Certificate of Analysis

Product Description:

Name: ICS-AB STD#1
Part Number: SM-606-037
Solution A
Lot Number: 1407732
Matrix: 20% HCl
Purity: 99.97% - 99.9999%

Certified Values:

Element	(mg/L)	SRM ID	SRM Lot#	Element	(mg/L)	SRM ID	SRM Lot#
Sb	100.0 ± 0.6	3102a	061229	P	200.0 ± 1.2	3139a	060717
As	200 ± 2	3103a	100818	K	5000 ± 25	3141a	051220
B	200.0 ± 1.2	3107	070514	Se	500 ± 5	3149	100901
Li	100.0 ± 0.6	3129a	100714	Na	5000 ± 25	3152a	120715
Mo	100.0 ± 0.6	3134	891307	Sr	100.0 ± 0.5	3153a	990906

The Certified values are based on gravimetric and volumetric preparation, and verified against SRM 3100 series developed by National Institute of Standards and Technology (NIST) via inductively coupled plasma optical emission spectrometry (ICP-OES) using an internal laboratory developed method. The uncertainty in the certified value is calculated for a 95% confidence interval and coverage factor *k* is about 2

* Refer to Traceability Information, Section d

Preparation Information:

The standard is generally prepared from single element standard solutions that are ISO Guide 34 certified reference materials. Highest purity source materials were purchased from qualified vendors per ISO 9001:2008 guidelines and assayed by ICP-OES for conformity prior to use. Sub-boiling distilled high-purity acid has been used to place the materials in solution and to stabilize the standard. The matrix is as noted above in 18 megaohm deionized water.

Traceability Information:

The traceability of this standard is maintained through an unbroken chain of comparisons to appropriate standards with suitable procedure and measurement uncertainties. The maintenance of the base and derived units of International System of Units (SI) with traceability of measurement results (contemporary metrology) to SI ensures their comparability over time as follows.

a. Standard Weight and Analytical Balance

The standard weights (NBS weights Inventory No 20231A) are calibrated every two years by South Carolina Metrology Laboratory that is a participant in "NIST Weights and Measures Measurement Assurance Program" with a certificate of measurement traceability to NIST primary standards.

The balances are calibrated yearly by the ISO 17025 accredited metrology service, and are verified weekly by an in-house method using standard weights.

Lot No.: 1407732

Rev. No.: 3.2.0

Page 1 of 2

High-Purity Standards is certified to ISO 9001:2008 and accredited to ISO/IEC 17025:2005 and ISO Guide 34:2009.

Sample Name: isab 1@100 Acquired: 4/26/2014 5:43:46 Type: Unk
 Method: 6500_026(v80) Mode: CONC Corr. Factor: 1.000000
 User: Scottsa Custom ID1: Custom ID2: Custom ID3:
 Comment:

00004 4/18/14

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00046	-.01004	.00273	.01443	.00171	.00001	-.00393	-.00238	-.00018
Stddev	.00060	.00034	.00171	.00010	.00052	.00007	.00079	.01050	.00008
%RSD	130.25	3.3736	62.864	.72146	30.547	469.71	20.017	441.56	42.750
#1	.00004	-.00980	.00151	.01450	.00208	-.00003	-.00337	.00505	-.00023
#2	.00089	-.01028	.00394	.01435	.00134	.00006	-.00449	-.00980	-.00012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00023	.00020	-.00089	-.01613	.32360	.00061	.00847	.00005	-.00032
Stddev	.00033	.00042	.00008	.00286	.07919	.00326	.00134	.00002	.00031
%RSD	141.68	212.19	8.7043	17.749	24.472	534.35	15.847	40.184	98.071
#1	-.00000	-.00010	-.00084	-.01816	.37960	-.00170	.00942	.00003	-.00010
#2	.00047	.00049	-.00095	-.01411	.26761	.00292	.00752	.00006	-.00054
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52359	.00384	.02106	.00108	.12888	-.00043	.00008	-.00518	.00618
Stddev	.01207	.00063	.00128	.00021	.00436	.00114	.00041	.01599	.00064
%RSD	2.3051	16.504	6.0577	19.465	3.3866	266.41	530.28	308.76	10.328
#1	.53212	.00429	.02196	.00123	.13196	.00038	-.00021	-.01649	.00573
#2	.51505	.00340	.02016	.00094	.12579	-.00124	.00037	.00613	.00664
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00019	-.00107	-.00022	W 11.230	.02192	.00075	-.00038	-.00225
Stddev	.00021	.00031	.00067	.017	.00271	.00102	.00047	.00280
%RSD	108.33	28.675	300.63	.15470	12.375	136.28	123.53	124.45
#1	-.00004	-.00129	-.00070	11.218	.02384	.00003	-.00005	-.00027
#2	-.00034	-.00085	.00025	11.243	.02000	.00147	-.00071	-.00422
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				5.0000				
Low Limit				-.01000				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4146.6	57639.	3109.6
Stddev	5.1	320.	11.1
%RSD	.12341	.55600	.35597
#1	4150.2	57866.	3101.8
#2	4143.0	57413.	3117.4

d. **Calibration Standards**

The Calibration Standards are traceable to SRM 3100 Series Spectrometric Standard Solutions or second sources.

Packaging and Storage Conditions:

The standard is packaged in a pre-cleaned polyethylene bottle. To maintain the integrity of this product, the solution should be kept tightly capped and stored under normal laboratory conditions.

Refer to Material Safety Datasheet (MSDS) for hazardous information.

Expiration Information:

The expiry date is guaranteed to be valid for twelve months from the shipping date provided. For this reason, standards from the same lot may have different expiration dates.

Preparation Date: March 18, 2014

Shipped Date: March 20, 2014

Expiration Date: March 20, 2015

Certificate Issue Date: March 19, 2014

Quality Information:



ISO/IEC 17025:2005 Accreditation
Certificate Number AT-1529

A handwritten signature in cursive script, appearing to read "Angel Sellers".

Angel Sellers
Quality Manager

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Lot No.: 1407733

Rev. No.: 3.2.0

Page 2 of 2

High-Purity Standards is certified to ISO 9001:2008 and accredited to ISO/IEC 17025:2005 and ISO Guide 34:2009.

Page 154 of 1738

ICP ISAB ST2

06/25/2015

ICP ISAB STD2



2579931
ID: ICP ISAB STD2_00006
Exp:09/20/15 Ppd: SJS Opr:04/01/14
ICP ISAB STD 2 HP

Certificate of Analysis

Product Description:

Name: ICS-AB STD #2
Part Number: SM-606-038
Lot Number: 1407733
Matrix: 20% HCl
Purity: 99.98% - 99.9998%

Certified Values:

Element	(mg/L)	SRM ID	SRM Lot#	Element	(mg/L)	SRM ID	SRM Lot#
Sn	1000 ± 6	3161a	070330	Ti	100.0 ± 0.6	3162a	060808

The Certified values are based on gravimetric and volumetric preparation, and verified against SRM 3100 series developed by National Institute of Standards and Technology (NIST) via inductively coupled plasma optical emission spectrometry (ICP-OES) using an internal laboratory developed method. The uncertainty in the certified value is calculated for a 95% confidence interval and coverage factor *k* is about 2

* Refer to Traceability Information, Section d

Preparation Information:

The standard is generally prepared from single element standard solutions that are ISO Guide 34 certified reference materials. Highest purity source materials were purchased from qualified vendors per ISO 9001:2008 guidelines and assayed by ICP-OES for conformity prior to use. Sub-boiling distilled high-purity acid has been used to place the materials in solution and to stabilize the standard. The matrix is as noted above in 18 megaohm deionized water.

Traceability Information:

The traceability of this standard is maintained through an unbroken chain of comparisons to appropriate standards with suitable procedure and measurement uncertainties. The maintenance of the base and derived units of International System of Units (SI) with traceability of measurement results (contemporary metrology) to SI ensures their comparability over time as follows.

a. **Standard Weight and Analytical Balance**

The standard weights (NBS weights Inventory No 20231A) are calibrated every two years by South Carolina Metrology Laboratory that is a participant in "NIST Weights and Measures Measurement Assurance Program" with a certificate of measurement traceability to NIST primary standards.

The balances are calibrated yearly by the ISO 17025 accredited metrology service, and are verified weekly by an in-house method using standard weights.

b. **Volumetric Device**

The calibration of volumetric vessels is checked annually using the ASTM method E542

c. **Thermometer**

The standard thermometers are calibrated every year by the ISO 17025 accredited metrology service. The thermometers used in-house are verified against the standard thermometers yearly.

Lot No.: 1407733

Rev. No.: 3.2.0

Page 1 of 2

High-Purity Standards is certified to ISO 9001:2008 and accredited to ISO/IEC 17025:2005 and ISO Guide 34:2009.

Sample Name: isab 2@100 Acquired: 4/26/2014 5:46:12 Type: Unk
 Method: 6500_026(v80) Mode: CONC Corr. Factor: 1.000000
 User: Scottsa Custom ID1: Custom ID2: Custom ID3:
 Comment:

-00004 4/11/14

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00060	-.00990	.00206	.01166	.00193	-.00010	.00082	-.00514	-.00027
Stddev	.00000	.00023	.00251	.00077	.00003	.00007	.00191	.00322	.00008
%RSD	.32553	2.3235	121.37	6.6138	1.8013	78.194	233.01	62.705	29.572
#1	.00060	-.01006	.00029	.01112	.00190	-.00004	-.00053	-.00286	-.00022
#2	.00060	-.00973	.00384	.01221	.00195	-.00015	.00217	-.00742	-.00033
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00041	.00043	-.00141	-.00951	.37325	-.00176	.01766	.00072	-.00048
Stddev	.00028	.00020	.00007	.00180	.01431	.00036	.02676	.00134	.00024
%RSD	67.958	46.817	4.9765	18.924	3.8339	20.266	151.56	185.09	50.510
#1	.00061	.00029	-.00136	-.01078	.38337	-.00201	.03658	.00167	-.00031
#2	.00021	.00057	-.00146	-.00824	.36313	-.00151	-.00127	-.00022	-.00066
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.38242	.00086	.01147	.00225	.11581	-.00002	.00140	W -.17038	W 10.580
Stddev	.02927	.00046	.00559	.00032	.00434	.00108	.00719	.02474	.029
%RSD	7.6528	53.675	48.703	14.329	3.7457	5792.9	513.10	14.518	.27392
#1	.36173	.00118	.01542	.00202	.11274	.00074	-.00368	-.15289	10.559
#2	.40312	.00053	.00752	.00248	.11887	-.00078	.00648	-.18787	10.600
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Warn	Chk Warn
High Limit								50.000	10.000
Low Limit								-.10000	-.05000

Elem	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00004	-.00173	.94646	.00195	.02630	.00045	.00014	-.00171
Stddev	.00010	.00072	.00120	.00040	.02741	.00070	.00126	.00327
%RSD	217.05	41.595	.12684	20.346	104.19	156.00	931.72	191.30
#1	-.00002	-.00122	.94561	.00167	.00692	.00095	.00103	.00060
#2	.00011	-.00224	.94731	.00223	.04568	-.00005	-.00076	-.00403
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	4083.5	56575.	3039.5
Stddev	22.7	98.	1.8
%RSD	.55474	.17367	.05997
#1	4099.6	56644.	3038.2
#2	4067.5	56505.	3040.8

Sample Name: 3015802LLCCV-1 Acquired: 12/3/2014 12:51:54 Type: Unk

Method: 6500_026 Mode: CONC Corr. Factor: 1.000000

User: L. Diaz Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280 ✓	Al3092 ✓	As1890 ✓	B_2089	Ba4554 ✓	Be3130 ✓	Bi2230 ✓	Ca3179 ✓	Cd2288 ✓
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1.0113	10.136	1.6495	.02362	1.0744	.10175	W 10.908	20.397	.53116
Stddev	.0097	.011	.0022	.00025	.0006	.00004	.007	.032	.00116
%RSD	.95697	.10815	.13575	1.0460	.05727	.03580	.06608	.15789	.21796
#1	1.0181	10.129	1.6510	.02379	1.0739	.10172	10.903	20.420	.53034
#2	1.0044	10.144	1.6479	.02344	1.0748	.10177	10.914	20.374	.53198
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass
High Limit	.10000						3.0000		
Low Limit	-.01000						-.01000		

Elem	Co2286 ✓	Cr2055 ✓	Cu3247 ✓	Fe2599 ✓	K_7664 ✓	Li6707 ✓	Mg2790 ✓	Mn2576 ✓	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0346	1.0460	1.5581	9.6578	W 329.44	1.1027	20.223	1.0134	-.00126
Stddev	.0011	.0025	.0053	.0101	.61	.0013	.005	.0010	.00013
%RSD	.10460	.23809	.34201	.10468	.18657	.11733	.02371	.09591	10.270
#1	1.0338	1.0442	1.5619	9.6649	329.88	1.1037	20.219	1.0127	-.00117
#2	1.0354	1.0478	1.5544	9.6506	329.01	1.1018	20.226	1.0141	-.00135
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					100.00				
Low Limit					-.50000				

Elem	Na8183 ✓	Ni2316 ✓	P_1782	Pb2203 ✓	S_1820	Sb2068	Se1960 ✓	Si2881	Sn1899
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	115.03	4.0783	-.00540	.93896	.15112	-.00824	1.6559	.00849	.00787
Stddev	.72	.0042	.00066	.00391	.00610	.00208	.0057	.00218	.00062
%RSD	.62737	.10344	12.141	.41649	4.0365	25.220	.34713	25.721	7.8174
#1	114.52	4.0754	-.00494	.94173	.15544	-.00677	1.6600	.01004	.00743
#2	115.54	4.0813	-.00587	.93620	.14681	-.00971	1.6519	.00695	.00830
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sr4077 ✓	Th2837 ✓	Ti3349	Tl1908 ✓	U_3701 ✓	V_2924 ✓	Zn2062 ✓	Zr3391
Line	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0580	1.5732	-.00715	1.5107	6.5253	1.0422	2.0700	.03655
Stddev	.0006	.0014	.00010	.0049	.0227	.0019	.0074	.00198
%RSD	.05448	.09032	1.4025	.32597	.34827	.18286	.35719	5.4268
#1	1.0584	1.5722	-.00722	1.5072	6.5092	1.0409	2.0648	.03515
#2	1.0576	1.5742	-.00708	1.5142	6.5414	1.0436	2.0753	.03795
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3890.7	76156.	5820.2
Stddev	4.3	322.	14.8
%RSD	.11072	.42297	.25393
#1	3893.7	76384.	5809.8
#2	3887.6	75929.	5830.7

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number (010105)).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
 Catalog Number: ICP-LLCCV-1
 Lot Number: H2-MEB534141
 Matrix: 5% (v/v) HNO₃
 Value / Analyte(s): 300 µg/mL ea:
 K,
 100 µg/mL ea:
 Na,
 20 µg/mL ea:
 Ca, Mg,
 10 µg/mL ea:
 Al, Bi, Fe,
 6 µg/mL ea:
 U,
 4 µg/mL ea:
 Ni,
 2 µg/mL ea:
 Zn,
 1.5 µg/mL ea:
 As, Cu, Se,
 Th, Tl,
 1 µg/mL ea:
 Ag, Ba, Co,
 Cr₃, Li, Mn,
 Sr, V,
 0.9 µg/mL ea:
 Pb,
 0.5 µg/mL ea:
 Cd,
 0.1 µg/mL ea:
 Be

3015802
ID: ICP LLCCV-1_00025
Exp:12/01/15 Prep:SLJ Opn:12/01/14
ICP LLCCV STD 1 IV

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum	10.00 ± 0.05 µg/mL	Arsenic	1.505 ± 0.009 µg/mL
Barium	0.998 ± 0.005 µg/mL	Beryllium	0.0998 ± 0.0006 µg/mL
Bismuth	9.97 ± 0.05 µg/mL	Cadmium	0.5014 ± 0.0023 µg/mL
Calcium	20.07 ± 0.09 µg/mL	Chromium+3	1.000 ± 0.005 µg/mL
Cobalt	0.998 ± 0.005 µg/mL	Copper	1.500 ± 0.007 µg/mL
Iron	10.00 ± 0.05 µg/mL	Lead	0.900 ± 0.005 µg/mL
Lithium	1.000 ± 0.007 µg/mL	Magnesium	20.08 ± 0.10 µg/mL
Manganese	0.998 ± 0.004 µg/mL	Nickel	3.990 ± 0.020 µg/mL
Potassium	300.2 ± 1.4 µg/mL	Selenium	1.503 ± 0.007 µg/mL
Silver	1.000 ± 0.004 µg/mL	Sodium	100.0 ± 1.0 µg/mL
Strontium	0.996 ± 0.004 µg/mL	Thallium	1.500 ± 0.007 µg/mL
Thorium	1.501 ± 0.008 µg/mL	Uranium	6.006 ± 0.029 µg/mL
Vanadium	1.001 ± 0.006 µg/mL	Zinc	2.001 ± 0.010 µg/mL

Certified Density: 1.022 g/mL (measured at 20 ± 1 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	992212
Ag	Volhard	999a	999a
Al	ICP Assay	3101a	060502
Al	EDTA	928	928
As	Calculated		See Sec. 4.2
As	ICP Assay	3103a	010713
Ba	Gravimetric		See Sec. 4.2
Ba	ICP Assay	3104a	070222
Be	Calculated		See Sec. 4.2
Be	ICP Assay	3105a	892707
Bi	Calculated		See Sec. 4.2
Bi	ICP Assay	3106	991212
Ca	ICP Assay	3109a	050825
Ca	EDTA	928	928
Cd	ICP Assay	3108	060531
Cd	EDTA	928	928
Co	ICP Assay	3181	000630
Co	EDTA	928	928
Cr3	Calculated		See Sec. 4.2
Cr3	ICP Assay	3112a	030730
Cu	ICP Assay	3114	011017
Cu	EDTA	928	928
Fe	ICP Assay	3126a	051031
Fe	EDTA	928	928
K	Gravimetric		See Sec. 4.2
K	ICP Assay	3141a	051220
Li	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	000505
Mg	ICP Assay	3131a	050302
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	Gravimetric		See Sec. 4.2
Na	ICP Assay	3152a	010728
Ni	ICP Assay	3136	000612
Ni	EDTA	928	928
Pb	ICP Assay	3128	030721
Pb	EDTA	928	928
Se	Calculated		See Sec. 4.2
Se	ICP Assay	3149	992106
Sr	ICP Assay	3153a	990906
Sr	EDTA	928	928
Th	ICP Assay	3159	992912
Th	EDTA	928	928
Tl	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	993012
U	Calculated		See Sec. 4.2
U	ICP Assay	3164	891509
V	ICP Assay	3165	992706
V	EDTA	928	928
Zn	ICP Assay	3168a	080123
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Certified Value $(\bar{x}) = \frac{\sum x_i}{n}$ (\bar{x}) = mean
 x_i = individual results
 n = number of measurements

Uncertainty $(\pm) = 2 [\sum (s_i)^2]^{1/2}$ 2 = the coverage factor.
 $[\sum (s_i)^2]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

Certified Abundance:

IV's Certified Abundance	
Isotope	Atom %
Uranium 238U	99.8 ± 0.1
Uranium 235U	0.29 ± 0.05

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

- N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Keep tightly sealed when not in use. Store and use at 20 ± 4°C. Do not pipette from the container. Do not return removed aliquots to container.

- Low Silver Note: This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.

- Uranium Note: If uranium is present in this standard, it is natural abundance unless specified in Section 3.0.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

10.4 ISO/IEC Guide 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 12, 2014

11.2 Period of Validity

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.3. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

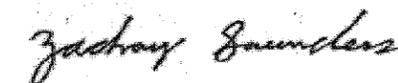
11.3 Expiration Date

EXPIRES
01 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

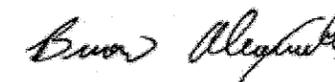
Certificate Prepared By:

Zach Saunders
Product Documentation Technician



Certificate Approved By:

Brian Alexander
PhD., Technical Process Director



Certifying Officer:

Paul Gaines
PhD., Senior Technical Director



Sample Name: 3053246@100 Acquired: 12/31/2014 18:36:42 Type: Unk
 Method: 6500_026(v8) Mode: CONC Corr. Factor: 1.000000
 User: Scottsa Custom ID1: 100X Custom ID2: Custom ID3:
 Comment: STDDEN-PDS-1

STDDEN-PDS-1
 ICP-00070

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}	228.616 {447}	205.552 {464}	324.754 {104}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05125	1.0190	.20476	-.00158	.10832	.04997	.00343	19.986	.05074	.05092	.05055	.05243
Stddev	.00004	.0010	.00126	.00068	.00025	.00010	.00172	.034	.00035	.00039	.00032	.00030
%RSD	.08754	.09930	.61668	43.126	.22838	.20630	50.064	.17043	.68885	.76021	.62438	.57798

#1	.05128	1.0183	.20565	-.00206	.10849	.04989	.00222	19.962	.05099	.05119	.05033	.05265
#2	.05121	1.0198	.20386	-.00110	.10814	.05004	.00464	20.011	.05050	.05065	.05078	.05222

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Line	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0164	21.166	.10830	19.451	.05047	-.00034	23.057	.05049	2.0426	.10147	.05437	.00126
Stddev	.0063	.001	.00196	.023	.00005	.00042	.247	.00080	.0111	.00045	.00349	.00130
%RSD	.61748	.00489	1.8095	.11710	.10428	122.87	1.0726	1.5928	.54352	.44781	6.4183	102.81

#1	1.0119	21.167	.10692	19.467	.05044	-.00005	22.882	.05106	2.0504	.10179	.05684	.00218
#2	1.0208	21.165	.10969	19.435	.05051	-.00064	23.232	.04992	2.0347	.10115	.05190	.00034

Check ?	Chk Pass	None	Chk Pass									
High Limit												
Low Limit												

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	196.090 {472}	288.158 {117}	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.20445	.03085	-.00071	.05365	.20045	-.00076	.20689	.51764	.04984	.19627	.00456
Stddev	.00488	.03424	.00014	.00013	.00172	.00047	.00119	.04321	.00010	.00026	.00021
%RSD	2.3856	110.96	19.638	.23896	.85914	62.279	.57379	8.3484	.19602	.13003	4.5491

#1	.20100	.00665	-.00061	.05374	.20167	-.00109	.20605	.54819	.04977	.19609	.00471
#2	.20790	.05506	-.00081	.05356	.19924	-.00042	.20773	.48708	.04991	.19645	.00441

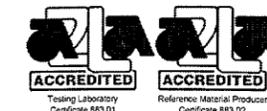
Check ?	Chk Pass										
High Limit											
Low Limit											

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3870.4	68357.	4147.2
Stddev	23.3	122.	3.5
%RSD	.60190	.17846	.08375

#1	3886.9	68271.	4144.7
#2	3854.0	68443.	4149.6

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number (010105)).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
 Catalog Number: STLDEN-PDS-1
 Lot Number: H2-MEB546062
 Matrix: 3% (v/v) HNO3
 Value / Analyte(s):

2 000 µg/mL ea:	Ca,	K,	Mg,
	Na,		
200 µg/mL ea:			
	P,		
100 µg/mL ea:	Al,	Fe,	
50 µg/mL ea:	U,		
20 µg/mL ea:	As,	Se,	Th,
	Tl,	Zn,	
10 µg/mL ea:	Ba,	Li,	Pb,
5 µg/mL ea:	Ag,	Be,	Cd,
	Co,	Cr3,	Cu,
	Mn,	Ni,	Sr,
	V		

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum	100.0 ± 0.5 µg/mL	Arsenic	20.00 ± 0.13 µg/mL
Barium	10.00 ± 0.06 µg/mL	Beryllium	5.000 ± 0.028 µg/mL
Cadmium	5.001 ± 0.032 µg/mL	Calcium	2 000 ± 9 µg/mL
Chromium+3	5.000 ± 0.028 µg/mL	Cobalt	5.001 ± 0.032 µg/mL
Copper	5.001 ± 0.032 µg/mL	Iron	100.0 ± 0.5 µg/mL
Lead	10.00 ± 0.05 µg/mL	Lithium	10.00 ± 0.05 µg/mL
Magnesium	2 000 ± 9 µg/mL	Manganese	5.001 ± 0.028 µg/mL
Nickel	5.001 ± 0.028 µg/mL	Phosphorus	200.0 ± 1.0 µg/mL
Potassium	2 000 ± 9 µg/mL	Selenium	20.00 ± 0.11 µg/mL
Silver	5.001 ± 0.036 µg/mL	Sodium	2 000 ± 9 µg/mL
Strontium	4.999 ± 0.032 µg/mL	Thallium	20.00 ± 0.13 µg/mL
Thorium	20.00 ± 0.11 µg/mL	Uranium	50.00 ± 0.36 µg/mL
Vanadium	4.999 ± 0.032 µg/mL	Zinc	20.00 ± 0.11 µg/mL

Certified Density: 1.041 g/mL (measured at 20 ± 1 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	992212
Ag	Volhard	999b	999b
Al	Calculated		See Sec. 4.2
Al	ICP Assay	3101a	060502
As	Calculated		See Sec. 4.2
As	ICP Assay	3103a	100818
Ba	Gravimetric		See Sec. 4.2
Ba	ICP Assay	3104a	070222
Be	Calculated		See Sec. 4.2
Be	ICP Assay	3105a	090514
Ca	ICP Assay	3109a	050825
Ca	EDTA	928	928
Cd	ICP Assay	3108	060531
Cd	EDTA	928	928
Co	ICP Assay	3113	00630
Co	EDTA	928	928
Cr3	Calculated		See Sec. 4.2
Cr3	ICP Assay	3112a	030730
Cu	ICP Assay	3114	011017
Cu	EDTA	928	928
Fe	ICP Assay	3126a	051031
Fe	EDTA	928	928
K	Gravimetric		See Sec. 4.2
K	ICP Assay	3141a	051220
Li	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	100714
Mg	ICP Assay	3131a	050302
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	Gravimetric		See Sec. 4.2
Na	ICP Assay	3152a	120715
Ni	ICP Assay	3136	000612
Ni	EDTA	928	928
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	Calculated		See Sec. 4.2
Se	ICP Assay	3149	100901
Sr	ICP Assay	3153a	990906
Sr	EDTA	928	928
Th	ICP Assay	3159	992912
Th	EDTA	928	928
Tl	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	993012
U	Calculated		See Sec. 4.2
U	ICP Assay	3164	080521
V	ICP Assay	3165	992706
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Certified Value $(\bar{x}) = \frac{\sum x_i}{n}$ (\bar{x}) = mean
 x_i = individual results
 n = number of measurements
 Uncertainty $(\pm) = 2 [\sum (s_i)^2]^{1/2}$ 2 = the coverage factor.
 $[\sum (s_i)^2]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

Certified Abundance:

IV's Certified Abundance	
Isotope	Atom %
Uranium 238U	99.8 ± 0.1
Uranium 235U	0.21 ± 0.05

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

- N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Keep tightly sealed when not in use. Store and use at 20 ± 4°C. Do not pipette from the container. Do not return removed aliquots to container.

- **Low Silver Note:** This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.

- **Uranium Note:** If uranium is present in this standard, it is natural abundance unless specified in Section 3.0.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

10.4 ISO/IEC Guide 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 22, 2014

11.2 Period of Validity

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.3. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

11.3 Expiration Date

EXPIRES
01/2016

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Zach Saunders
Product Documentation Technician

Zachary Saunders

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Brian Alexander

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director

Paul R. Gaines

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number (010105)).


2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
 Catalog Number: STLDEN-RL-2A
 Lot Number: F2-MEB425129
 Matrix: tr. HF
 1.4% (v/v) HNO₃
 Value / Analyte(s): 500 µg/mL ea:
 Si,
 20 µg/mL ea:
 Sn,
 10 µg/mL ea:
 Mo, Ti, Zr

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Molybdenum, Mo	10.00 ± 0.06 µg/mL	Silicon, Si	500.3 ± 2.4 µg/mL	Tin, Sn	20.01 ± 0.13 µg/mL
Titanium, Ti	10.00 ± 0.07 µg/mL	Zirconium, Zr	10.00 ± 0.06 µg/mL		

Certified Density: 1.006 g/mL (measured at 20 ± 1 °C)

Assay Information:

ELEMENT	METHOD	NIST SRM#	SRM LOT#
Mo	Calculated		See Sec. 4.2
Mo	ICP Assay	3134	891307
Si	Calculated		See Sec. 4.2
Si	ICP Assay	3150	071204
Sn	Calculated		See Sec. 4.2
Sn	ICP Assay	3161a	070330
Ti	Calculated		See Sec. 4.2
Ti	ICP Assay	3162a	060808
Zr	Calculated		See Sec. 4.2
Zr	ICP Assay	3169	071226

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n}$$

(\bar{x}) = mean
 x_i = individual results
 n = number of measurements

$$\text{Uncertainty } (\pm) = 2 \left[\sum (s_i)^2 \right]^{1/2}$$

2 = the coverage factor.
 $\left[\sum (s_i)^2 \right]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Keep tightly sealed when not in use. Store and use at $20 \pm 4^\circ\text{C}$. Do not pipette from the container. Do not return removed aliquots to container.

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

10.4 ISO/IEC Guide 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 13, 2012

11.2 Expiration Date

EXPIRES

01st 2015

11.3 Period of Validity

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.2. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician



Certificate Approved By:

Brian Alexander
PhD., Technical Process Director



Certifying Officer:

Paul Gaines
PhD., Senior Technical Director



Sample Name: 2812789 Acquired: 12/20/2014 11:46:15 Type: Unk
 Method: 6500_026(v4) Mode: CONC Corr. Factor: 1.000000
 User: L. Trudell Custom ID1: Custom ID2: Custom ID3:
 Comment: rl3a

57

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}
Units	ppm	ppm	ppm	ppm	ppm
Avg	W 1.8890 <i>aq</i>	20.490 <i>102</i>	-0.00523	19.643 <i>98</i>	1.0389 <i>104</i>
Stddev	.0075	.153	.00033	.099	.0038
%RSD	.39869	.74612	6.3653	.50357	.37001
#1	1.8943	20.382	-0.00499	19.713	1.0362
#2	1.8836	20.598	-0.00546	19.573	1.0416
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.10000				
Low Limit	-.01000				

Elem	Be3130	Bi2230	Ca3179	Cd2288	Co2286
Line	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19820 <i>aq</i>	-0.00129	40.362 <i>101</i>	1.0486 <i>105</i>	.99051 <i>99</i>
Stddev	.00098	.00044	.163	.0063	.00584
%RSD	.49453	33.643	.40318	.60135	.58939
#1	.19751	-0.00099	40.247	1.0530	.99464
#2	.19890	-0.00160	40.477	1.0441	.98639
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2055	Cu3247	Fe2599	K_7664	Li6707
Line	205.552 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.9674 <i>aq</i>	2.0258 <i>101</i>	6.0711 <i>101</i>	W 203.03 <i>102</i>	2.1009 <i>105</i>
Stddev	.0121	.0049	.0327	.81	.0080
%RSD	.61300	.24030	.53893	.40138	.38182
#1	1.9759	2.0292	6.0480	202.45	2.0952
#2	1.9588	2.0223	6.0943	203.61	2.1066
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit				100.00	
Low Limit				-.50000	

verified

Sample Name: 2812789 Acquired: 12/20/2014 11:46:15 Type: Unk

Method: 6500_026(v4) Mode: CONC Corr. Factor: 1.000000

User: L. Trudell Custom ID1: Custom ID2: Custom ID3:

Comment: r13a

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 { 41}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	38.355 <i>90</i>	.59806 <i>100</i>	.00010	210.62 <i>105</i>	1.9892 <i>99</i>
Stddev	.114	.00132	.00002	.74	.0109
%RSD	.29692	.22113	20.482	.35340	.54906
#1	38.435	.59900	.00009	210.09	1.9969
#2	38.274	.59713	.00012	211.14	1.9814
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	P_1782	Pb2203	S_1820	Sb2068	Se1960
Line	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}
Units	ppm	ppm	ppm	ppm	ppm
Avg	F 183.34 <i>92</i>	.00359	-.05650	W -.01075	-.00447
Stddev	.97	.00165	.00199	.00116	.00543
%RSD	.52996	46.064	3.5152	10.811	121.34
#1	184.03	.00242	-.05510	-.00993	-.00831
#2	182.66	.00476	-.05791	-.01157	-.00064
Check ?	Chk Fail	Chk Pass	None	Chk Warn	Chk Pass
High Limit	50.000			2.0000	
Low Limit	-2.0000			-.01000	

Elem	Si2881	Sn1899	Sr4077	Th2837	Ti3349
Line	288.158 {117}	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21567	.00164	1.0231 <i>102</i>	1.8709 <i>94</i>	-.00480
Stddev	.03681	.00072	.0045	.0108	.00099
%RSD	17.070	44.130	.44303	.57915	20.578
#1	.24170	.00215	1.0199	1.8785	-.00550
#2	.18964	.00113	1.0263	1.8632	-.00410
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 2812789 Acquired: 12/20/2014 11:46:15 Type: Unk
 Method: 6500_026(v4) Mode: CONC Corr. Factor: 1.000000
 User: L. Trudell Custom ID1: Custom ID2: Custom ID3:
 Comment: r13a

Elem	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00724	12.132	1.9825	2.0200	.02419
Stddev	.00048	.008	.0052	.0071	.00095
%RSD	6.6550	.06276	.26068	.35219	3.9391
#1	-.00690	12.126	1.9861	2.0250	.02352
#2	-.00758	12.137	1.9788	2.0150	.02487
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5589.2	95190.	8299.9
Stddev	11.9	325.	25.8
%RSD	.21262	.34184	.31033
#1	5580.8	94960.	8318.2
#2	5597.6	95420.	8281.7

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number (010105)).



3253592

ID: ICP SPK 2B_00025

 Exp:06/01/16 Prpd:CGG Opn:05/05/15
 ICP PREP SPIKE 2B

2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution

Catalog Number: TA-ICP-SPK-2B

Lot Number: H2-MEB546154

Matrix: 5% (v/v) HNO₃
0.5% (v/v) HF

Value / Analyte(s): 1 000 µg/mL ea:
Si,
200 µg/mL ea:
S, Sn,
100 µg/mL ea:
B, Mo, Ti,
50 µg/mL ea:
Sb, Zr

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	50.00 ± 0.38 µg/mL	Boron, B	100.0 ± 0.7 µg/mL	Molybdenum, Mo	100.0 ± 0.6 µg/mL
Silicon, Si	1 000 ± 8 µg/mL	Sulfur, S	200.0 ± 1.1 µg/mL	Tin, Sn	200.0 ± 0.9 µg/mL
Titanium, Ti	100.0 ± 0.7 µg/mL	Zirconium, Zr	50.00 ± 0.28 µg/mL		

Certified Density: 1.029 g/mL (measured at 20 ± 1 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	070514
Mo	ICP Assay	3134	891307
S	ICP Assay	3154	892205
S	Acidimetric	84L	84L
Sb	Calculated		See Sec. 4.2
Sb	ICP Assay	3102A	061229
Si	Calculated		See Sec. 4.2
Si	ICP Assay	3150	071204
Sn	Calculated		See Sec. 4.2
Sn	ICP Assay	3161a	070330
Ti	Calculated		See Sec. 4.2
Ti	ICP Assay	3162a	060808
Zr	Calculated		See Sec. 4.2
Zr	ICP Assay	3169	071226

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n}$$

(\bar{x}) = mean
 x_i = individual results
 n = number of measurements

$$\text{Uncertainty } (\pm) = 2 \left[\sum (s_i)^2 \right]^{1/2}$$

2 = the coverage factor.
 $\left[\sum (s_i)^2 \right]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Keep cap tightly sealed when not in use. Store and use at $20 \pm 4^\circ \text{C}$. Do not pipette from the container. Do not return removed aliquots to container.

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

10.4 ISO/IEC Guide 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.1 Certification Issue Date

October 10, 2014

11.2 Expiration Date

EXPIRES

1 2016

11.3 Period of Validity

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.2. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

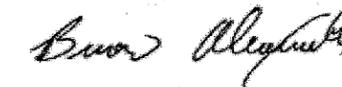
Certificate Prepared By:

Zach Saunders
Product Documentation Technician



Certificate Approved By:

Brian Alexander
PhD., Technical Process Director



Certifying Officer:

Paul Gaines
PhD., Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number 010105).


2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution

Catalog Number: STLDEN-SPK-3A

Lot Number: J2-MEB571140

Matrix: 3% (v/v) HNO₃

Value / Analyte(s): 5 000 µg/mL ea:

Ca, K, Mg, Na,

1 000 µg/mL ea:

P,

200 µg/mL ea:

Al, Ba, Bi, Se,

Tl, U,

100 µg/mL ea:

As, Fe, Li, Sr,

Th,

50 µg/mL ea:

Co, Mn, Ni, Pb,

V, Zn,

25 µg/mL ea:

Cu,

20 µg/mL ea:

Cr₃,

10 µg/mL ea:

Cd,

5 µg/mL ea:

Ag, Be


3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	200.0 ± 1.0 µg/mL	Arsenic, As	100.0 ± 0.8 µg/mL
Barium, Ba	199.9 ± 1.0 µg/mL	Beryllium, Be	5.000 ± 0.028 µg/mL
Bismuth, Bi	200.0 ± 1.2 µg/mL	Cadmium, Cd	10.00 ± 0.05 µg/mL
Calcium, Ca	5 000 ± 23 µg/mL	Chromium+3, Cr3	20.00 ± 0.10 µg/mL
Cobalt, Co	50.00 ± 0.25 µg/mL	Copper, Cu	25.00 ± 0.11 µg/mL
Iron, Fe	100.0 ± 0.5 µg/mL	Lead, Pb	50.00 ± 0.26 µg/mL
Lithium, Li	100.0 ± 0.7 µg/mL	Magnesium, Mg	5 000 ± 23 µg/mL
Manganese, Mn	50.00 ± 0.23 µg/mL	Nickel, Ni	50.00 ± 0.33 µg/mL
Phosphorus, P	1 000 ± 5 µg/mL	Potassium, K	5 000 ± 22 µg/mL
Selenium, Se	200.0 ± 1.3 µg/mL	Silver, Ag	5.000 ± 0.036 µg/mL
Sodium, Na	5 000 ± 22 µg/mL	Strontium, Sr	100.0 ± 0.6 µg/mL
Thallium, Tl	200.0 ± 1.6 µg/mL	Thorium, Th	100.0 ± 0.5 µg/mL
Uranium, U	200.0 ± 1.4 µg/mL	Vanadium, V	50.00 ± 0.24 µg/mL
Zinc, Zn	50.00 ± 0.23 µg/mL		

Certified Density: 1.083 g/mL (measured at 20 ± 1 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	992212
Ag	Volhard	999b	999b
Al	ICP Assay	3101a	060502
Al	EDTA	928	928
As	Calculated		See Sec. 4.2
As	ICP Assay	3103a	100818
Ba	Gravimetric		See Sec. 4.2
Ba	ICP Assay	3104a	070222
Be	Calculated		See Sec. 4.2
Be	ICP Assay	3105a	090514
Bi	Calculated		See Sec. 4.2
Bi	ICP Assay	3106	991212
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cd	ICP Assay	3108	060531
Cd	EDTA	928	928
Co	ICP Assay	3181	000630
Co	EDTA	928	928
Cr3	Calculated		See Sec. 4.2
Cr3	ICP Assay	3112a	030730
Cu	ICP Assay	3114	011017
Cu	EDTA	928	928
Fe	ICP Assay	3126a	051031
Fe	EDTA	928	928
K	Gravimetric		See Sec. 4.2
K	ICP Assay	3141a	051220
Li	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	100714
Mg	ICP Assay	3131a	050302
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	Gravimetric		See Sec. 4.2
Na	ICP Assay	3152a	120715
Ni	ICP Assay	3136	000612
Ni	EDTA	928	928
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	Calculated		See Sec. 4.2
Se	ICP Assay	3149	100901
Sr	ICP Assay	3153a	990906
Sr	EDTA	928	928
Th	ICP Assay	3159	992912
Th	EDTA	928	928
Tl	ICP Assay	3158	993012
U	Calculated		See Sec. 4.2
U	ICP Assay	3164	080521
V	ICP Assay	3165	992706
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\sum x_i}{n}$

(\bar{x}) = mean
 x_i = individual results
 n = number of measurements

Uncertainty $(\pm) = 2 [\sum (s_i)^2]^{1/2}$

2 = the coverage factor.
 $[\sum (s_i)^2]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

Certified Abundance:

IV's Certified Abundance	
Isotope	Atom %
Uranium 238U	99.8 ± 0.1
Uranium 235U	0.21 ± 0.05

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Keep cap tightly sealed when not in use. Store and use at 20 ± 4° C. Do not pipette from the container. Do not return removed aliquots to container.

Low Silver Note: This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.

Uranium Note: If uranium is present in this standard, it is natural abundance unless specified in Section 3.0

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

10.4 ISO/IEC Guide 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 26, 2015

11.2 Expiration Date

EXPIRES
1 2016

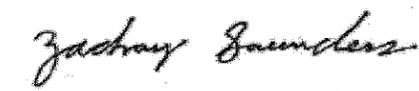
11.3 Period of Validity

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.2. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Zach Saunders
Product Documentation Technician



Certificate Approved By:

Brian Alexander
PhD., Technical Process Director



Certifying Officer:

Paul Gaines
PhD., Senior Technical Director



-00012

Sample Name: ICSA@10 Acquired: 12/31/2014 16:08:51 Type: Unk
Method: 6500_026(v8) Mode: CONC Corr. Factor: 1.000000
User: Scottsa Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Line	328.068 (103)	309.271 (109)	189.042 (478)	208.959 (461)	455.403 (74)	313.042 (108)	223.061 (451)	317.933 (106)	228.802 (447)	228.616 (447)	205.552 (464)	324.754 (104)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0061	RW 525.87	.00909	.00663	.00037	-0.0018	-0.0452	475.02	.00132	-0.0020	.00267	.00409
Stddev	.00022	.05	.00179	.00106	.00006	.00003	.00167	2.39	.00008	.00039	.00019	.00049
%RSD	36.535	.00992	19.660	16.046	17.327	15.963	36.886	.50357	5.7484	191.87	7.1335	11.866

#1	-0.0076	525.83	.01036	.00738	.00032	-0.0016	-0.0334	476.71	.00138	-0.0048	.00254	.00443
#2	-0.0045	525.91	.00783	.00588	.00041	-0.0020	-0.0570	473.33	.00127	.00007	.00281	.00375

Check ?	Chk Pass	Chk Warn	Chk Pass									
High Limit		500.00										
Low Limit		4.0000										

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Line	271.441 (124)	766.490 (44)	670.784 (50)	279.079 (121)2	257.610 (131)	202.030 (467)	589.592 (57)	231.604 (446)	178.284 (489)	220.353 (453)	182.034 (485)	206.833 (463)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	197.64	-13273	-0.00344	RW 508.19	.00116	-0.0264	.02989	.00147	-0.01288	.00086	-1.8440	.00867
Stddev	.12	.09360	.00241	2.76	.00000	.00002	.00014	.00019	.00191	.00058	.00055	.00260
%RSD	.05887	70.514	70.039	.54312	.36681	.92686	.46012	12.650	14.801	68.217	.30034	29.992

#1	197.72	-0.06655	-0.00174	506.24	.00115	-0.0266	.02979	.00161	-0.01423	.00127	-1.8401	.01051
#2	197.55	-1.9892	-0.00514	510.15	.00116	-0.0263	.02999	.00134	-0.01153	.00044	-1.8479	.00683

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	None	Chk Pass					
High Limit				500.00								
Low Limit				-1.0000								

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	196.090 (472)	288.158 (117)	189.989 (477)	407.771 (83)	283.730 (119)	334.904 (101)	190.856 (477)	370.152 (91)	292.402 (115)	206.200 (163)	339.198 (99)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.01024	.03086	-0.00358	.00477	-0.00712	.00030	.00395	.11075	.00264	.00392	.00293
Stddev	.01564	.01048	.00034	.00010	.00283	.00033	.00250	.00506	.00062	.00043	.00082
%RSD	152.74	33.952	9.3550	2.0261	39.795	108.64	63.240	4.5689	23.414	11.075	28.057

#1	-0.02129	.03827	-0.00335	.00484	-0.00912	.00007	.00572	.11432	.00308	.00423	.00351
#2	.00082	.02345	-0.00382	.00470	-0.00511	.00053	.00219	.10717	.00220	.00361	.00235

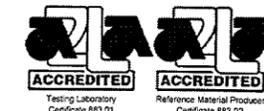
Check ?	Chk Fail	Chk Pass									
High Limit	50.000										
Low Limit	-0.1000										

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 (450)	360.073 (94)	377.433 (89)
Units	Cts/S	Cts/S	Cts/S
Avg	3646.6	61943.	4289.4
Stddev	4.4	68.	.7
%RSD	.12078	.10971	.01543

#1	3649.7	61991.	4289.9
#2	3643.5	61895.	4288.9

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number (010105)).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
Catalog Number: CLPP-ICS-A
Lot Number: H2-MEB525068
Matrix: 2% (v/v) HNO₃
Value / Analyte(s):
5 000 µg/mL ea:
Al, Ca, Mg,
2 000 µg/mL ea:
Fe

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum	5 001 ± 25 µg/mL	Calcium	5 001 ± 23 µg/mL
Iron	2 000 ± 9 µg/mL	Magnesium	5 001 ± 32 µg/mL

Certified Density: 1.086 g/mL (measured at 20 ± 1 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Al	ICP Assay	3101a	060502
Al	EDTA	928	928
Ca	ICP Assay	3109a	050825
Ca	EDTA	928	928
Fe	ICP Assay	3126a	051031
Fe	EDTA	928	928
Mg	ICP Assay	3131a	050302
Mg	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n}$$

(\bar{x}) = mean
 x_i = individual results
 n = number of measurements
 2 = the coverage factor.

$$\text{Uncertainty } (\pm) = 2 \left[\sum (s_i)^2 \right]^{1/2}$$

$\left[\sum (s_i)^2 \right]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an UHPA-Filtered Clean Room. An UHPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.000401	M Er < 0.000100	M Mn < 0.003106	O S < 0.466980	M V < 0.000401
s Al < 0.000200	M Eu < 0.000100	M Mo < 0.000501	M Sb < 0.000301	M W < 0.000301
M As < 0.004008	s Fe < 0.000100	O Na < 0.062011	O Sc < 0.000543	M Y < 0.000100
M Au < 0.000200	M Ga < 0.000100	M Nb < 0.000100	M Se < 0.002505	M Yb < 0.000100
O B < 0.012272	M Gd < 0.000100	M Nd < 0.000501	O Si < 0.095025	M Zn < 0.017634
O Ba < 0.001086	O Ge < 0.032580	O Ni < 0.005430	M Sm < 0.000100	M Zr < 0.000601
O Be < 0.000217	M Hf < 0.000100	M Os < 0.000200	M Sn < 0.000200	
M Bi < 0.000301	M Hg < 0.000400	O P < 0.108600	M Sr < 0.045788	
s Ca < 0.000100	M Ho < 0.000100	M Pb < 0.004709	M Ta < 0.000100	
M Cd < 0.000100	M In < 0.000401	M Pd < 0.000100	M Tl < 0.000100	
M Ce < 0.002004	M Ir < 0.000100	M Pr < 0.000100	M Te < 0.000100	
O Co < 0.004344	O K < 0.022806	M Pt < 0.000100	M Th < 0.000100	
M Cr < 0.026251	M La < 0.001002	M Rb < 0.000200	O Ti < 0.002172	
M Cs < 0.000301	O Li < 0.015313	M Re < 0.000100	M Tl < 0.000100	
O Cu < 0.001086	M Lu < 0.000100	M Rh < 0.000100	M Tm < 0.000100	
M Dy < 0.000100	s Mg < 0.000100	M Ru < 0.000100	M U < 0.000100	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Keep tightly sealed when not in use. Store and use at 20 ± 4°C. Do not pipette from the container. Do not return removed aliquots to container.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

10.4 ISO/IEC Guide 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 29, 2014

11.2 Period of Validity

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.3. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

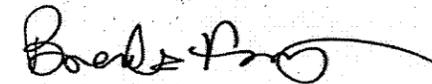
11.3 Expiration Date

EXPIRES
1-2016

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

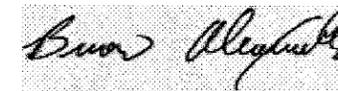
Certificate Prepared By:

Brenda Francis
Product Documentation Technician



Certificate Approved By:

Brian Alexander
PhD., Technical Process Director



Certifying Officer:

Paul Gaines
PhD., Senior Technical Director





110 Benner Circle
 Bellefonte, PA 16823-8812
 Tel: (800)356-1688
 Fax: (814)353-1309

www.restek.com



Certificate of Analysis

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567641.sec - 00010 **Lot No.:** A093733

Description : 8260 List 1 / Std #1 MegaMix
8260 List 1 / Std #1 MegaMix 1,000-50,000 µg/ml, P&T Methanol, 1 ml/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 2016 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Diethyl ether (ethyl ether) CAS # 60-29-7.SEC Purity 99%	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
			+/-	44.2531	µg/mL	Unstressed
			+/-	44.4335	µg/mL	Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) CAS # 76-13-1.SEC Purity 99%	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
			+/-	44.2531	µg/mL	Unstressed
			+/-	44.4335	µg/mL	Stressed
3	1,1-Dichloroethene CAS # 75-35-4.SEC Purity 99%	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
			+/-	44.2531	µg/mL	Unstressed
			+/-	44.4335	µg/mL	Stressed
4	tert-Butanol (TBA) CAS # 75-65-0.SEC Purity 99%	20,000.0 µg/mL	+/-	116.2756	µg/mL	Gravimetric
			+/-	442.5291	µg/mL	Unstressed
			+/-	444.3332	µg/mL	Stressed
5	Iodomethane (methyl iodide) CAS # 74-88-4.SEC Purity 97%	2,000.0 µg/mL	+/-	11.6284	µg/mL	Gravimetric
			+/-	44.2540	µg/mL	Unstressed
			+/-	44.4344	µg/mL	Stressed
6	Allyl chloride (3-chloropropene) CAS # 107-05-1.SEC Purity 98%	2,000.0 µg/mL	+/-	11.6281	µg/mL	Gravimetric
			+/-	44.2527	µg/mL	Unstressed
			+/-	44.4331	µg/mL	Stressed
7	Methyl acetate CAS # 79-20-9.SEC Purity 99%	10,000.0 µg/mL	+/-	58.1378	µg/mL	Gravimetric
			+/-	221.2646	µg/mL	Unstressed
			+/-	222.1666	µg/mL	Stressed
8	Carbon disulfide CAS # 75-15-0.SEC Purity 98%	2,000.0 µg/mL	+/-	11.6281	µg/mL	Gravimetric
			+/-	44.2527	µg/mL	Unstressed
			+/-	44.4331	µg/mL	Stressed
9	Methylene chloride (dichloromethane) CAS # 75-09-2.SEC Purity 99%	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
			+/-	44.2531	µg/mL	Unstressed
			+/-	44.4335	µg/mL	Stressed

10	Acrylonitrile CAS # 107-13-1.SEC Purity 99%	20,000.0 µg/mL	+/- 116.2756 +/- 442.5291 +/- 444.3332	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	Methyl-tert-butyl ether (MTBE) CAS # 1634-04-4.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	cis-1,2-Dichloroethene CAS # 156-59-2.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	n-Hexane (C6) CAS # 110-54-3.SEC Purity 98%	2,000.1 µg/mL	+/- 11.6286 +/- 44.2549 +/- 44.4353	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	1,1-Dichloroethane CAS # 75-34-3.SEC Purity 97%	2,000.0 µg/mL	+/- 11.6284 +/- 44.2540 +/- 44.4344	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	2,2-Dichloropropane CAS # 594-20-7.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	trans-1,2-Dichloroethene CAS # 156-60-5.SEC Purity 97%	2,000.0 µg/mL	+/- 11.6284 +/- 44.2540 +/- 44.4344	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	Chloroform CAS # 67-66-3.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	Isobutanol (2-Methyl-1-propanol) CAS # 78-83-1.SEC Purity 99%	50,000.0 µg/mL	+/- 290.6891 +/- 1,106.3228 +/- 1,110.8331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	Bromochloromethane CAS # 74-97-5.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	Tetrahydrofuran CAS # 109-99-9.SEC Purity 99%	4,000.0 µg/mL	+/- 23.2563 +/- 88.5061 +/- 88.8670	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	1,1,1-Trichloroethane CAS # 71-55-6.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	Cyclohexane CAS # 110-82-7.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	1,1-Dichloropropene CAS # 563-58-6.SEC Purity 98%	2,010.5 µg/mL	+/- 11.6890 +/- 44.4847 +/- 44.6661	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
24	Carbon tetrachloride CAS # 56-23-5.SEC Purity 98%	2,000.1 µg/mL	+/- 11.6286 +/- 44.2549 +/- 44.4353	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	n-Heptane (C7) CAS # 142-82-5.SEC Purity 99%	2,000.1 µg/mL	+/- 11.6288 +/- 44.2553 +/- 44.4357	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	Benzene CAS # 71-43-2.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	1,2-Dichloroethane CAS # 107-06-2.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Trichloroethene CAS # 79-01-6.SEC Purity 98%	2,000.1 µg/mL	+/- 11.6286 +/- 44.2549 +/- 44.4353	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

29	Methylcyclohexane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 108-87-2.SEC			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
30	1,2-Dichloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 78-87-5.SEC			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
31	1,4-Dioxane	40,000.0	µg/mL	+/-	232.5513	µg/mL	Gravimetric	
	CAS # 123-91-1.SEC			+/-	885.0582		µg/mL	Unstressed
	Purity 99%			+/-	888.6665		µg/mL	Stressed
32	Dibromomethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 74-95-3.SEC			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
33	Bromodichloromethane	2,000.1	µg/mL	+/-	11.6290	µg/mL	Gravimetric	
	CAS # 75-27-4.SEC			+/-	44.2562		µg/mL	Unstressed
	Purity 97%			+/-	44.4366		µg/mL	Stressed
34	cis-1,3-Dichloropropene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 10061-01-5.SEC			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
35	Toluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 108-88-3.SEC			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
36	Ethyl methacrylate	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 97-63-2.SEC			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
37	trans-1,3-Dichloropropene	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric	
	CAS # 10061-02-6.SEC			+/-	44.2527		µg/mL	Unstressed
	Purity 98%			+/-	44.4331		µg/mL	Stressed
38	1,1,2-Trichloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 79-00-5.SEC			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
39	1,3-Dichloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 142-28-9.SEC			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
40	Tetrachloroethene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 127-18-4.SEC			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
41	Dibromochloromethane	2,000.1	µg/mL	+/-	11.6290	µg/mL	Gravimetric	
	CAS # 124-48-1.SEC			+/-	44.2562		µg/mL	Unstressed
	Purity 97%			+/-	44.4366		µg/mL	Stressed
42	1,2-Dibromoethane (EDB)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 106-93-4.SEC			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
43	Chlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 108-90-7.SEC			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
44	1,1,1,2-Tetrachloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 630-20-6.SEC			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
45	m-Xylene	1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric	
	CAS # 108-38-3.SEC			+/-	22.1265		µg/mL	Unstressed
	Purity 99%			+/-	22.2167		µg/mL	Stressed
46	p-Xylene	1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric	
	CAS # 106-42-3.SEC			+/-	22.1265		µg/mL	Unstressed
	Purity 99%			+/-	22.2167		µg/mL	Stressed
47	o-Xylene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 95-47-6.SEC			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed

48	Ethylbenzene CAS # 100-41-4.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	Styrene CAS # 100-42-5.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	Isopropylbenzene (cumene) CAS # 98-82-8.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	Bromoform CAS # 75-25-2.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	1,1,2,2-Tetrachloroethane CAS # 79-34-5.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	1,2,3-Trichloropropane CAS # 96-18-4.SEC Purity 98%	2,000.0 µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	trans-1,4-Dichloro-2-butene CAS # 110-57-6.SEC Purity 97%	2,000.0 µg/mL	+/- 11.6284 +/- 44.2540 +/- 44.4344	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
55	n-Propylbenzene CAS # 103-65-1.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
56	Bromobenzene CAS # 108-86-1.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
57	1,3,5-Trimethylbenzene CAS # 108-67-8.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
58	2-Chlorotoluene CAS # 95-49-8.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
59	4-Chlorotoluene CAS # 106-43-4.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
60	tert-Butylbenzene CAS # 98-06-6.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
61	1,2,4-Trimethylbenzene CAS # 95-63-6.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
62	sec-Butylbenzene CAS # 135-98-8.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
63	4-Isopropyltoluene (p-cymene) CAS # 99-87-6.SEC Purity 96%	2,000.1 µg/mL	+/- 11.6285 +/- 44.2545 +/- 44.4349	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
64	1,3-Dichlorobenzene CAS # 541-73-1.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
65	1,4-Dichlorobenzene CAS # 106-46-7.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
66	n-Butylbenzene CAS # 104-51-8.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

67	1,2-Dichlorobenzene CAS # 95-50-1.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
68	1,2-Dibromo-3-chloropropane CAS # 96-12-8.SEC Purity 97%	2,000.0 µg/mL	+/- 11.6284 +/- 44.2540 +/- 44.4344	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
69	1,2,4-Trichlorobenzene CAS # 120-82-1.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
70	Hexachlorobutadiene CAS # 87-68-3.SEC Purity 97%	2,000.0 µg/mL	+/- 11.6284 +/- 44.2540 +/- 44.4344	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
71	Naphthalene CAS # 91-20-3.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
72	1,2,3-Trichlorobenzene CAS # 87-61-6.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x .25mm x 1.4µm
Rtx-502.2 (cat.#10916)

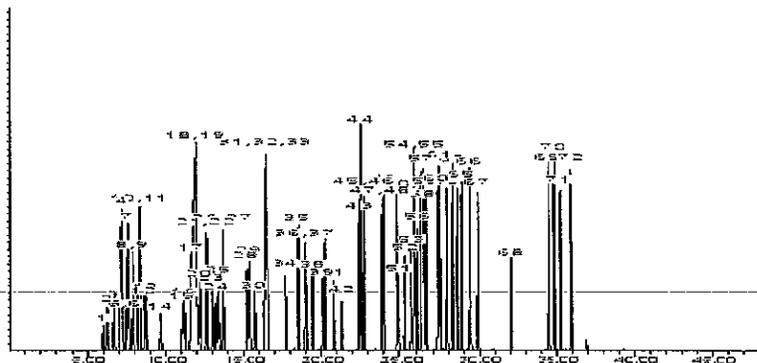
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



Jennifer L. Pollino
Jennifer L. Pollino - QC Analyst

Date Passed: 01-Mar-2013

Balance: 1127510105

Manufactured under Restek's ISO 9001:2008
Registered Quality System
Certificate #FM 80397



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 Bellefonte, PA 16823-8812
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Certificate of Analysis

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

*Received
6/2/14*

Catalog No. : 567641 - 00014 Lot No.: A093581
 Description : 8260 List 1 / Std #1 MegaMix
8260 List 1 / Std #1 MegaMix 1000-50,000 µg/ml, P&T Methanol, 1 ml/ampul
 Container Size : 2 mL Pkg Amt: > 1 mL
 Expiration Date : February 2016 Storage: 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Diethyl ether (ethyl ether)	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 60-29-7		+/-	44.2531	µg/mL	Unstressed
	Purity 99%		+/-	44.4335	µg/mL	Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113)	1,999.9 µg/mL	+/-	11.6279	µg/mL	Gravimetric
	CAS # 76-13-1		+/-	44.2519	µg/mL	Unstressed
	Purity 97%		+/-	44.4323	µg/mL	Stressed
3	1,1-dichloroethene	2,000.0 µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 75-35-4		+/-	44.2527	µg/mL	Unstressed
	Purity 98%		+/-	44.4331	µg/mL	Stressed
4	tert-Butanol (TBA)	20,000.0 µg/mL	+/-	116.2756	µg/mL	Gravimetric
	CAS # 75-65-0		+/-	442.5291	µg/mL	Unstressed
	Purity 99%		+/-	444.3332	µg/mL	Stressed
5	Iodomethane (methyl iodide)	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 74-88-4		+/-	44.2531	µg/mL	Unstressed
	Purity 99%		+/-	44.4335	µg/mL	Stressed
6	Allyl chloride (3-chloropropene)	2,000.0 µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 107-05-1		+/-	44.2527	µg/mL	Unstressed
	Purity 98%		+/-	44.4331	µg/mL	Stressed
7	Methyl acetate	10,000.0 µg/mL	+/-	58.1378	µg/mL	Gravimetric
	CAS # 79-20-9		+/-	221.2646	µg/mL	Unstressed
	Purity 99%		+/-	222.1666	µg/mL	Stressed
8	Carbon disulfide	2,000.0 µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 75-15-0		+/-	44.2527	µg/mL	Unstressed
	Purity 98%		+/-	44.4331	µg/mL	Stressed
9	Methylene chloride (dichloromethane)	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 75-09-2		+/-	44.2531	µg/mL	Unstressed
	Purity 99%		+/-	44.4335	µg/mL	Stressed

10	Acrylonitrile	20,000.0	$\mu\text{g/mL}$	+/-	116.2756	$\mu\text{g/mL}$	Gravimetric
	CAS # 107-13-1			+/-	442.5291	$\mu\text{g/mL}$	Unstressed
	Purity 99%			+/-	444.3332	$\mu\text{g/mL}$	Stressed
11	Methyl-tert-butyl ether (MTBE)	2,000.0	$\mu\text{g/mL}$	+/-	11.6282	$\mu\text{g/mL}$	Gravimetric
	CAS # 1634-04-4			+/-	44.2531	$\mu\text{g/mL}$	Unstressed
	Purity 99%			+/-	44.4335	$\mu\text{g/mL}$	Stressed
12	cis-1,2-Dichloroethene	2,000.0	$\mu\text{g/mL}$	+/-	11.6282	$\mu\text{g/mL}$	Gravimetric
	CAS # 156-59-2			+/-	44.2531	$\mu\text{g/mL}$	Unstressed
	Purity 99%			+/-	44.4335	$\mu\text{g/mL}$	Stressed
13	n-Hexane (C6)	2,000.0	$\mu\text{g/mL}$	+/-	11.6282	$\mu\text{g/mL}$	Gravimetric
	CAS # 110-54-3			+/-	44.2531	$\mu\text{g/mL}$	Unstressed
	Purity 99%			+/-	44.4335	$\mu\text{g/mL}$	Stressed
14	1,1-Dichloroethane	2,000.0	$\mu\text{g/mL}$	+/-	11.6281	$\mu\text{g/mL}$	Gravimetric
	CAS # 75-34-3			+/-	44.2527	$\mu\text{g/mL}$	Unstressed
	Purity 98%			+/-	44.4331	$\mu\text{g/mL}$	Stressed
15	2,2-Dichloropropane	2,000.0	$\mu\text{g/mL}$	+/-	11.6281	$\mu\text{g/mL}$	Gravimetric
	CAS # 594-20-7			+/-	44.2527	$\mu\text{g/mL}$	Unstressed
	Purity 98%			+/-	44.4331	$\mu\text{g/mL}$	Stressed
16	trans-1,2-Dichloroethene	2,000.0	$\mu\text{g/mL}$	+/-	11.6282	$\mu\text{g/mL}$	Gravimetric
	CAS # 156-60-5			+/-	44.2531	$\mu\text{g/mL}$	Unstressed
	Purity 99%			+/-	44.4335	$\mu\text{g/mL}$	Stressed
17	chloroform	2,000.0	$\mu\text{g/mL}$	+/-	11.6282	$\mu\text{g/mL}$	Gravimetric
	CAS # 67-66-3			+/-	44.2531	$\mu\text{g/mL}$	Unstressed
	Purity 99%			+/-	44.4335	$\mu\text{g/mL}$	Stressed
18	Isobutanol (2-Methyl-1-propanol)	50,000.0	$\mu\text{g/mL}$	+/-	290.6891	$\mu\text{g/mL}$	Gravimetric
	CAS # 78-83-1			+/-	1,106.3228	$\mu\text{g/mL}$	Unstressed
	Purity 99%			+/-	1,110.8331	$\mu\text{g/mL}$	Stressed
19	Bromochloromethane	2,000.0	$\mu\text{g/mL}$	+/-	11.6282	$\mu\text{g/mL}$	Gravimetric
	CAS # 74-97-5			+/-	44.2531	$\mu\text{g/mL}$	Unstressed
	Purity 99%			+/-	44.4335	$\mu\text{g/mL}$	Stressed
20	Tetrahydrofuran	4,000.0	$\mu\text{g/mL}$	+/-	23.2563	$\mu\text{g/mL}$	Gravimetric
	CAS # 109-99-9			+/-	88.5061	$\mu\text{g/mL}$	Unstressed
	Purity 99%			+/-	88.8670	$\mu\text{g/mL}$	Stressed
21	1,1,1-trichloroethane	2,000.0	$\mu\text{g/mL}$	+/-	11.6282	$\mu\text{g/mL}$	Gravimetric
	CAS # 71-55-6			+/-	44.2531	$\mu\text{g/mL}$	Unstressed
	Purity 99%			+/-	44.4335	$\mu\text{g/mL}$	Stressed
22	Cyclohexane	2,000.0	$\mu\text{g/mL}$	+/-	11.6281	$\mu\text{g/mL}$	Gravimetric
	CAS # 110-82-7			+/-	44.2527	$\mu\text{g/mL}$	Unstressed
	Purity 98%			+/-	44.4331	$\mu\text{g/mL}$	Stressed
23	1,1-Dichloropropene	2,000.0	$\mu\text{g/mL}$	+/-	11.6282	$\mu\text{g/mL}$	Gravimetric
	CAS # 563-58-6			+/-	44.2531	$\mu\text{g/mL}$	Unstressed
	Purity 99%			+/-	44.4335	$\mu\text{g/mL}$	Stressed
24	carbon tetrachloride	2,000.0	$\mu\text{g/mL}$	+/-	11.6282	$\mu\text{g/mL}$	Gravimetric
	CAS # 56-23-5			+/-	44.2531	$\mu\text{g/mL}$	Unstressed
	Purity 99%			+/-	44.4335	$\mu\text{g/mL}$	Stressed
25	n-Heptane (C7)	2,000.0	$\mu\text{g/mL}$	+/-	11.6282	$\mu\text{g/mL}$	Gravimetric
	CAS # 142-82-5			+/-	44.2531	$\mu\text{g/mL}$	Unstressed
	Purity 99%			+/-	44.4335	$\mu\text{g/mL}$	Stressed
26	Benzene	2,000.0	$\mu\text{g/mL}$	+/-	11.6282	$\mu\text{g/mL}$	Gravimetric
	CAS # 71-43-2			+/-	44.2531	$\mu\text{g/mL}$	Unstressed
	Purity 99%			+/-	44.4335	$\mu\text{g/mL}$	Stressed
27	1,2-Dichloroethane	2,000.0	$\mu\text{g/mL}$	+/-	11.6282	$\mu\text{g/mL}$	Gravimetric
	CAS # 107-06-2			+/-	44.2531	$\mu\text{g/mL}$	Unstressed
	Purity 99%			+/-	44.4335	$\mu\text{g/mL}$	Stressed
28	Trichloroethene	2,000.0	$\mu\text{g/mL}$	+/-	11.6282	$\mu\text{g/mL}$	Gravimetric
	CAS # 79-01-6			+/-	44.2531	$\mu\text{g/mL}$	Unstressed
	Purity 99%			+/-	44.4335	$\mu\text{g/mL}$	Stressed

29	Methylcyclohexane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 108-87-2			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
30	1,2-Dichloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 78-87-5			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
31	1,4-Dioxane	40,000.0	µg/mL	+/-	232.5513	µg/mL	Gravimetric	
	CAS # 123-91-1			+/-	885.0582		µg/mL	Unstressed
	Purity 99%			+/-	888.6665		µg/mL	Stressed
32	Dibromomethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 74-95-3			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
33	bromodichloromethane	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric	
	CAS # 75-27-4			+/-	44.2540		µg/mL	Unstressed
	Purity 97%			+/-	44.4344		µg/mL	Stressed
34	cis-1,3-Dichloropropene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 10061-01-5			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
35	Toluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 108-88-3			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
36	Ethyl methacrylate	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 97-63-2			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
37	trans-1,3-Dichloropropene	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric	
	CAS # 10061-02-6			+/-	44.2540		µg/mL	Unstressed
	Purity 97%			+/-	44.4344		µg/mL	Stressed
38	1,1,2-Trichloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 79-00-5			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
39	1,3-Dichloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 142-28-9			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
40	Tetrachloroethene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 127-18-4			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
41	dibromochloromethane	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric	
	CAS # 124-48-1			+/-	44.2527		µg/mL	Unstressed
	Purity 98%			+/-	44.4331		µg/mL	Stressed
42	1,2-Dibromoethane (EDB)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 106-93-4			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
43	Chlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 108-90-7			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
44	1,1,1,2-Tetrachloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 630-20-6			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
45	m-Xylene	1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric	
	CAS # 108-38-3			+/-	22.1265		µg/mL	Unstressed
	Purity 99%			+/-	22.2167		µg/mL	Stressed
46	p-Xylene	1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric	
	CAS # 106-42-3			+/-	22.1265		µg/mL	Unstressed
	Purity 99%			+/-	22.2167		µg/mL	Stressed
47	o-Xylene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 95-47-6			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed

48	Ethylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 100-41-4			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
49	Styrene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 100-42-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
50	Isopropylbenzene (cumene)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 98-82-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
51	bromoform	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 75-25-2			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
52	1,1,2,2-Tetrachloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 79-34-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
53	1,2,3-Trichloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 96-18-4			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
54	trans-1,4-dichloro-2-butene	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 110-57-6			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
55	n-Propylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 103-65-1			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
56	Bromobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-86-1			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
57	1,3,5-Trimethylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-67-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
58	2-Chlorotoluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 95-49-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
59	4-Chlorotoluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 106-43-4			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
60	tert-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 98-06-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
61	1,2,4-Trimethylbenzene	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 95-63-6			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
62	sec-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 135-98-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
63	4-Isopropyltoluene (p-Cymene)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 99-87-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
64	1,3-Dichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 541-73-1			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
65	1,4-Dichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 106-46-7			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
66	n-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 104-51-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
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Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567642.SEC -00015 Lot No.: A0101295

Description : 8260 List 1 / Std #2 Ketones

8260/624 Ketones Standard 10,000 ug/ml, P&T Methanol/Water (90:10), 1 ml/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : February 28, 2017 Storage: 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Acetone	10,015.2 µg/mL	+/-	58.6412	µg/mL	Gravimetric
	CAS # 67-64-1.SEC (Lot 0902033)		+/-	533.0320	µg/mL	Unstressed
	Purity 99%		+/-	533.6197	µg/mL	Stressed
2	2-Butanone (MEK)	10,010.0 µg/mL	+/-	58.6108	µg/mL	Gravimetric
	CAS # 78-93-3.SEC (Lot VEGGI)		+/-	532.7553	µg/mL	Unstressed
	Purity 99%		+/-	533.3427	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	10,012.4 µg/mL	+/-	58.6248	µg/mL	Gravimetric
	CAS # 108-10-1.SEC (Lot E29T040)		+/-	532.8830	µg/mL	Unstressed
	Purity 99%		+/-	533.4706	µg/mL	Stressed
4	2-Hexanone	10,016.4 µg/mL	+/-	58.6482	µg/mL	Gravimetric
	CAS # 591-78-6.SEC (Lot ZSVCD-FF)		+/-	533.0959	µg/mL	Unstressed
	Purity 99%		+/-	533.6837	µg/mL	Stressed
Solvent:	P&T Methanol/Water (90:10)					
	CAS # 67-56-1/7732-18-5					
	Purity 99%					



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
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6x/ml
REC 4/20/15 GM

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567642.SEC Lot No.: A0101295

Description : 8260 List 1 / Std #2 Ketones
8260/624 Ketones Standard 10,000 ug/ml, P&T Methanol/Water (90:10), 1 ml/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : February 28, 2017 Storage: 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Acetone	10,015.2 µg/mL	+/-	58.6412	µg/mL	Gravimetric
	CAS # 67-64-1.SEC (Lot 0902033)		+/-	533.0320	µg/mL	Unstressed
	Purity 99%		+/-	533.6197	µg/mL	Stressed
2	2-Butanone (MEK)	10,010.0 µg/mL	+/-	58.6108	µg/mL	Gravimetric
	CAS # 78-93-3.SEC (Lot VEGGI)		+/-	532.7553	µg/mL	Unstressed
	Purity 99%		+/-	533.3427	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	10,012.4 µg/mL	+/-	58.6248	µg/mL	Gravimetric
	CAS # 108-10-1.SEC (Lot E29T040)		+/-	532.8830	µg/mL	Unstressed
	Purity 99%		+/-	533.4706	µg/mL	Stressed
4	2-Hexanone	10,016.4 µg/mL	+/-	58.6482	µg/mL	Gravimetric
	CAS # 591-78-6.SEC (Lot ZSVCD-FF)		+/-	533.0959	µg/mL	Unstressed
	Purity 99%		+/-	533.6837	µg/mL	Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%



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6x/mL
 REC 1/6/15
 Gm



Certificate of Analysis

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567642 **Lot No.:** A093365
Description : 8260 List 1 / Std #2 Ketones
8260 List 1 / Std #2 Ketones 10,000 ug/ml, P&T Methanol/Water (90:10), 1 ml/ampul
Container Size : 2 ml **Pkg Amt:** > 1 mL
Expiration Date : February 2016 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Acetone	10,000.0 µg/mL	+/-	58.1378	µg/mL	Gravimetric
	CAS # 67-64-1		+/-	798.6896	µg/mL	Unstressed
	Purity 99%		+/-	799.0807	µg/mL	Stressed
2	2-Butanone (MEK)	10,000.0 µg/mL	+/-	58.1378	µg/mL	Gravimetric
	CAS # 78-93-3		+/-	798.6896	µg/mL	Unstressed
	Purity 99%		+/-	799.0807	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	10,000.0 µg/mL	+/-	58.1378	µg/mL	Gravimetric
	CAS # 108-10-1		+/-	798.6896	µg/mL	Unstressed
	Purity 99%		+/-	799.0807	µg/mL	Stressed
4	2-Hexanone	10,000.0 µg/mL	+/-	58.1378	µg/mL	Gravimetric
	CAS # 591-78-6		+/-	798.6896	µg/mL	Unstressed
	Purity 99%		+/-	799.0807	µg/mL	Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%



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2x/mL
 REC 10/23/13
 Gu



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Catalog No. : 567643 Lot No.: A093368

Description : 8260 List 1 / Std #4 2-Chloroethylvinyl Ether

8260 List 1 / Std #4 2-Chloroethylvinyl Ether 2,000 ug/ml, P&T Methanol,
 1 ml/ampul

Container Size : 2 mL

Pkg Amt: > 1 mL

Expiration Date : February 2016

Storage: 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
I	2-Chloroethyl vinyl ether	2,000.0 µg/mL	+/- 11.6282	µg/mL	Gravimetric
	CAS # 110-75-8		+/- 44.2531	µg/mL	Unstressed
	Purity 99%		+/- 44.4335	µg/mL	Stressed

Solvent: P&T Methanol
 CAS # 67-56-1
 Purity 99%

Tech Tips:

Degradation of tetrachloroethylene to pentachloroethane may occur if solutions containing 2-chloroethyl vinyl ether are combined with solutions that contain tetrachloroethylene.

Degradation of tetrachloroethylene to pentachloroethane may occur if solutions containing 2-chloroethyl vinyl ether are combined with solutions that contain tetrachloroethylene.



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2x/mL
 REC 10/23/13
 Gu



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Catalog No. : 567643 Lot No.: A093368

Description : 8260 List 1 / Std #4 2-Chloroethylvinyl Ether

8260 List 1 / Std #4 2-Chloroethylvinyl Ether 2,000 ug/ml, P&T Methanol,
 1 ml/ampul

Container Size : 2 mL

Pkg Amt: > 1 mL

Expiration Date : February 2016

Storage: 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
I	2-Chloroethyl vinyl ether	2,000.0 µg/mL	+/- 11.6282	µg/mL	Gravimetric
	CAS # 110-75-8		+/- 44.2531	µg/mL	Unstressed
	Purity 99%		+/- 44.4335	µg/mL	Stressed

Solvent: P&T Methanol
 CAS # 67-56-1
 Purity 99%

Tech Tips:

Degradation of tetrachloroethylene to pentachloroethane may occur if solutions containing 2-chloroethyl vinyl ether are combined with solutions that contain tetrachloroethylene.

Degradation of tetrachloroethylene to pentachloroethane may occur if solutions containing 2-chloroethyl vinyl ether are combined with solutions that contain tetrachloroethylene.



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Catalog No.: 567645.sec - 00017 Lot No.: A099261
Description: 8260 List 1 / Std #3 Gases
8260 List 1 / Std #3 Gases 2,000 ug/ml, P&T Methanol, 1 ml/ampul
Container Size: 2 mL Pkg Amt: > 1 mL
Expiration Date: November 30, 2015 Storage: 0°C or colder

CERTIFIED VALUES

Table with 7 columns: Elution Order, Compound, Grav. Conc. (weight/volume), Expanded Uncertainty (95% C.L.; K=2), and three additional columns for measurement details. Rows 1-8 list various compounds like Dichlorodifluoromethane, Chloromethane, Vinyl chloride, etc.



CERTIFIED REFERENCE MATERIAL

2x/mL REC 1/6/15

GM



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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567645 Lot No.: A0105755

Description : 8260 List 1 / Std #3 Gases
8260 List 1 / Std #3 Gases 2,000 ug/ml, P&T Methanol, 1 ml/ampul

Container Size : 2 ml Pkg Amt: > 1 mL

Expiration Date : September 30, 2016 Storage: 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Dichlorodifluoromethane (CFC-12)	1,996.9 µg/mL	+/-	16.4920	µg/mL	Gravimetric
	CAS # 75-71-8 (Lot Q16A-86)		+/-	25.3820	µg/mL	Unstressed
	Purity 99%		+/-	28.4359	µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,003.6 µg/mL	+/-	13.5945	µg/mL	Gravimetric
	CAS # 74-87-3 (Lot SHBC8470V)		+/-	23.6556	µg/mL	Unstressed
	Purity 99%		+/-	26.9268	µg/mL	Stressed
3	Vinyl chloride	2,001.1 µg/mL	+/-	27.3546	µg/mL	Gravimetric
	CAS # 75-01-4 (Lot 17542)		+/-	33.4976	µg/mL	Unstressed
	Purity 99%		+/-	35.8765	µg/mL	Stressed
4	1,3-Butadiene	1,999.9 µg/mL	+/-	23.4547	µg/mL	Gravimetric
	CAS # 106-99-0 (Lot SHBD5808V)		+/-	30.3891	µg/mL	Unstressed
	Purity 99%		+/-	32.9901	µg/mL	Stressed
5	Bromomethane (methyl bromide)	1,998.7 µg/mL	+/-	30.0266	µg/mL	Gravimetric
	CAS # 74-83-9 (Lot 101604)		+/-	35.7004	µg/mL	Unstressed
	Purity 99%		+/-	37.9363	µg/mL	Stressed
6	Chloroethane (ethyl chloride)	2,000.1 µg/mL	+/-	18.0935	µg/mL	Gravimetric
	CAS # 75-00-3 (Lot SHBD1717V)		+/-	26.4730	µg/mL	Unstressed
	Purity 99%		+/-	29.4228	µg/mL	Stressed
7	Dichlorofluoromethane (CFC-21)	1,999.1 µg/mL	+/-	17.9677	µg/mL	Gravimetric
	CAS # 75-43-4 (Lot Q9B-58)		+/-	26.3801	µg/mL	Unstressed
	Purity 99%		+/-	29.3364	µg/mL	Stressed
8	Trichlorofluoromethane (CFC-11)	2,001.1 µg/mL	+/-	24.2299	µg/mL	Gravimetric
	CAS # 75-69-4 (Lot SHBD5121V)		+/-	30.9989	µg/mL	Unstressed
	Purity 99%		+/-	33.5557	µg/mL	Stressed

3x/mL REC 2/24/15
GM



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Catalog No. : 567648 Lot No.: A0108012

Description : 8260 List 2 / Std #3 Cyclohexanone
8260 List 2 / Std #3 Cyclohexanone 20,000 ug/ml, Water, 1 ml/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : December 31, 2017 Storage: 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	Cyclohexanone CAS # 108-94-1 Purity 99% (Lot MKBP7869V)	20,022.0 µg/mL	+/- 117.2332 µg/mL Gravimetric +/- 1,065.6170 µg/mL Unstressed +/- 1,066.7919 µg/mL Stressed

Solvent: Water
CAS # 7732-18-5
Purity 99%



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5 x 15 mL
REC 12/29/14



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Catalog No. : 567650 Lot No.: A0105143
 Description : 8260 Surrogate Standard
8260 Surrogate Standard 2,500 ug/ml, P&T Methanol, 5 ml/ampul
 Container Size : 5 mL Pkg Amt: > 5 mL
 Expiration Date : August 31, 2019 Storage: 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Dibromofluoromethane CAS # 1868-53-7 (Lot 022013) Purity 99%	2,512.4 µg/mL	+/- 14.6073	µg/mL	Gravimetric
			+/- 28.3309	µg/mL	Unstressed
			+/- 32.6007	µg/mL	Stressed
2	1,2-Dichloroethane-d4 CAS # 17060-07-0 (Lot 14C-191) Purity 99%	2,506.0 µg/mL	+/- 14.5701	µg/mL	Gravimetric
			+/- 28.2587	µg/mL	Unstressed
			+/- 32.5176	µg/mL	Stressed
3	Toluene-d8 CAS # 2037-26-5 (Lot 14C-176) Purity 99%	2,499.8 µg/mL	+/- 14.5341	µg/mL	Gravimetric
			+/- 28.1888	µg/mL	Unstressed
			+/- 32.4372	µg/mL	Stressed
4	1-Bromo-4-fluorobenzene (BFB) CAS # 460-00-4 (Lot 20401KOV) Purity 99%	2,500.4 µg/mL	+/- 14.5375	µg/mL	Gravimetric
			+/- 28.1956	µg/mL	Unstressed
			+/- 32.4450	µg/mL	Stressed

Solvent: P&T Methanol
 CAS # 67-56-1
 Purity 99%



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Gravimetric Certificate



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Catalog No. : 568034 Lot No.: A0104827

Description : Denver Main Add Ons Standard
Denver Main Add Ons Standard 1,000-30,000 µg/ml, P&T
Methanol/Water (90:10), 1 ml/ampul

Container Size : 2 ml Pkg Amt: > 1 mL

Expiration Date : January 31, 2016 Storage: 0°C or colder

CERTIFIED VALUES

Component #	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	1-Chlorohexane	1,000.0 µg/mL	+/-	10.0737	µg/mL	Gravimetric
	CAS # 544-10-5 (Lot 05107LK)		+/-	53.8499	µg/mL	Unstressed
	Purity 99%		+/-	53.9079	µg/mL	Stressed
2	2-Butanol (sec-butyl alcohol)	30,020.0 µg/mL	+/-	277.8107	µg/mL	Gravimetric
	CAS # 78-92-2 (Lot 50296KKV)		+/-	1,612.1523	µg/mL	Unstressed
	Purity 99%		+/-	1,613.8982	µg/mL	Stressed
3	2-Pentanone	4,004.0 µg/mL	+/-	37.2350	µg/mL	Gravimetric
	CAS # 107-87-9 (Lot 1399841)		+/-	215.0566	µg/mL	Unstressed
	Purity 99%		+/-	215.2894	µg/mL	Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

F. Joseph Tallon
F. Joseph Tallon - Mix Technician

Date Mixed: 22-Jul-2014 Balance: B251644995

Manufactured under Restek's ISO 9001:2008
Registered Quality System
Certificate #FM 80397



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Catalog No. : 568036 - 0007 Lot No.: A0104018

Description : Denver Supp Add Ons Standard #2
Denver Supp Add Ons Standard #2 1,000 µg/ml, P&T Methanol, 1 ml/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : December 31, 2015 Storage: 0°C or colder

received
6/18/14

CERTIFIED VALUES

Component #	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	cis-1,4-Dichloro-2-butene	1,001.0 µg/mL	+/-	10.0842	µg/mL	Gravimetric
	CAS # 1476-11-5 (Lot SHBD5650V)		+/-	13.9728	µg/mL	Unstressed
	Purity 97%		+/-	15.3799	µg/mL	Stressed
2	Tetrahydrothiophene	1,000.0 µg/mL	+/-	10.0737	µg/mL	Gravimetric
	CAS # 110-01-0 (Lot 08905ED)		+/-	13.9583	µg/mL	Unstressed
	Purity 99%		+/-	15.3639	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Kendra Swope - Mix Technician

Date Mixed: 13-Jun-2014 Balance: 1125113331

Manufactured under Restek's ISO 9001:2008
Registered Quality System
Certificate #FM 80397

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Catalog No. : 568718 - D - 00002 Lot No.: A099955
 Description : 8260 Internal Standard 2014
8260 Internal Standard 2014 250-5,000 ug/ml, P&T Methanol, 5 ml/ampul
 Container Size : 5 mL Pkg Amt: > 5 mL
 Expiration Date : December 31, 2018 Storage: 0°C or colder

received
6/5/14

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	tert-Butyl-d9-alcohol CAS # 25725-11-5 Purity 99% (Lot C158P9)	5,022.0 µg/mL	+/-	29.4049	µg/mL Gravimetric
			+/-	106.5603	µg/mL Unstressed
			+/-	107.0326	µg/mL Stressed
2	2-Butanone-d5 CAS # 24313-50-6 Purity 99% (Lot M276P8)	1,251.0 µg/mL	+/-	7.3416	µg/mL Gravimetric
			+/-	26.5492	µg/mL Unstressed
			+/-	26.6668	µg/mL Stressed
3	Fluorobenzene CAS # 462-06-6 Purity 99% (Lot 1380033)	251.5 µg/mL	+/-	1.4938	µg/mL Gravimetric
			+/-	5.3424	µg/mL Unstressed
			+/-	5.3660	µg/mL Stressed
4	1,4-Dioxane-d8 CAS # 17647-74-4 Purity 99% (Lot 11C-596)	5,002.0 µg/mL	+/-	29.2878	µg/mL Gravimetric
			+/-	106.1359	µg/mL Unstressed
			+/-	106.6064	µg/mL Stressed
5	Chlorobenzene-d5 CAS # 3114-55-4 Purity 99% (Lot PR-22736)	251.0 µg/mL	+/-	1.4909	µg/mL Gravimetric
			+/-	5.3318	µg/mL Unstressed
			+/-	5.3554	µg/mL Stressed
	1,4-Dichlorobenzene-d4 CAS # 3855-82-1 Purity 99% (Lot PR-18488)	251.0 µg/mL	+/-	1.4909	µg/mL Gravimetric
			+/-	5.3318	µg/mL Unstressed
			+/-	5.3554	µg/mL Stressed

REC 3/2/15 GM
2x/mL



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Catalog No. : 568720 Lot No.: A0108734

Description : 8260 List 1/Std #5 Acrolein High
8260 List 1/Std #5 Acrolein High 19,750 µg/mL, Water, 1 mL/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : May 31, 2015 Storage: 10°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
			Value	Unit	Method
1	Acrolein	19,890.0 µg/mL	+/-	116.4603	µg/mL Gravimetric
	CAS # 107-02-8		+/-	637.7359	µg/mL Unstressed
	Purity 99%		+/-	741.2982	µg/mL Stressed
(Lot 150115JLM)					

Solvent: Water
CAS # 7732-18-5
Purity 99%



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2x/mL
REC 6/1/15 Cm

Certificate of Analysis



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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568720 Lot No.: A0109948

Description : 8260 List 1/Std #5 Acrolein High
8260 List 1/Std #5 Acrolein High 19,750 µg/mL, Water, 1 mL/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : July 31, 2015 Storage: 10°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	Acrolein CAS # 107-02-8 Purity 99% (Lot 150115JLM)	19,756.0 µg/mL	+/- 115.6757 µg/mL Gravimetric +/- 633.4395 µg/mL Unstressed +/- 736.3041 µg/mL Stressed

Solvent: Water
CAS # 7732-18-5
Purity 99%



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4 x/mL
REC 2/23/15 GM

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569724 Lot No.: A0108225
 Description : 8260 List 1 / Std #6 Vinyl Acetate (2015)
8260 List 1 / Std #6 Vinyl Acetate (2015) 5000 ug/ml, P&T Methanol, 1 ml/ampul
 Container Size : 2 ml Pkg Amt: > 1 mL
 Expiration Date : July 31, 2015 Storage: 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	Vinyl acetate CAS # 108-05-4 Purity 99%	5,000.0 µg/mL (Lot STBC8935V)	+/- 29.3428 µg/mL +/- 266.1189 µg/mL +/- 266.4123 µg/mL
			Gravimetric Unstressed Stressed

Solvent: P&T Methanol
 CAS # 67-56-1
 Purity 99%

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods. Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.



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4x1mL
 REC 2/3/15 Cm



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Catalog No.: 569725 **Lot No.:** A0108219
Description: 8260 List 2/ Std #1 Additions (2015)
8260 List 2/ Std #1 Additions (2015) 2500-62,500 µg/ml, P&T Methanol, 1 ml/ampul
Container Size: 2 mL **Pkg Amt:** > 1 mL
Expiration Date: July 31, 2015 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Propanol (isopropanol)	25,013.0 µg/mL	+/-	146.4566 µg/mL	Gravimetric
	CAS # 67-63-0 (Lot SHBC9345V)		+/-	1,331.2495 µg/mL	Unstressed
	Purity 99%		+/-	1,332.7173 µg/mL	Stressed
2	Chloroprene (2-chloro-1,3-butadiene)	2,500.0 µg/mL	+/-	33.4403 µg/mL	Gravimetric
	CAS # 126-99-8 (Lot 140611JLM)		+/-	136.4105 µg/mL	Unstressed
	Purity 99%		+/-	136.5536 µg/mL	Stressed
3	Ethyl acetate	5,001.5 µg/mL	+/-	29.2849 µg/mL	Gravimetric
	CAS # 141-78-6 (Lot SHBF1248V)		+/-	266.1914 µg/mL	Unstressed
	Purity 99%		+/-	266.4849 µg/mL	Stressed
4	Methacrylonitrile	25,011.0 µg/mL	+/-	146.4449 µg/mL	Gravimetric
	CAS # 126-98-7 (Lot 1012014)		+/-	1,331.1430 µg/mL	Unstressed
	Purity 99%		+/-	1,332.6108 µg/mL	Stressed
5	2,2,4-Trimethylpentane (isooctane)	2,505.5 µg/mL	+/-	14.7037 µg/mL	Gravimetric
	CAS # 540-84-1 (Lot SHBB2470V)		+/-	133.3522 µg/mL	Unstressed
	Purity 99%		+/-	133.4992 µg/mL	Stressed
6	1-Butanol	62,530.5 µg/mL	+/-	366.1109 µg/mL	Gravimetric
	CAS # 71-36-3 (Lot SHBF1679V)		+/-	3,328.0152 µg/mL	Unstressed
	Purity 99%		+/-	3,331.6847 µg/mL	Stressed
7	1,4-Difluorobenzene	2,514.0 µg/mL	+/-	14.7536 µg/mL	Gravimetric
	CAS # 540-36-3 (Lot MKBN8571V)		+/-	133.8046 µg/mL	Unstressed
	Purity 99%		+/-	133.9521 µg/mL	Stressed

8	Ethyl acrylate CAS # 140-88-5 Purity 99%	(Lot 10129902)	2,508.0 µg/mL	+/- 14.7183 +/- 133.4852 +/- 133.6324	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Methyl methacrylate CAS # 80-62-6 Purity 99%	(Lot STBD4840V)	5,005.5 µg/mL	+/- 29.3083 +/- 266.4042 +/- 266.6980	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	2-Nitropropane CAS # 79-46-9 Purity 97%	(Lot BCBJ4343V)	5,008.6 µg/mL	+/- 29.3264 +/- 266.5690 +/- 266.8629	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	Butyl acetate CAS # 123-86-4 Purity 99%	(Lot SHBF4442V)	2,503.5 µg/mL	+/- 14.6919 +/- 133.2457 +/- 133.3926	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	1-Chlorohexane CAS # 544-10-5 Purity 98%	(Lot 05107LK)	2,503.4 µg/mL	+/- 14.6914 +/- 133.2409 +/- 133.3878	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	1,2,3-Trimethylbenzene CAS # 526-73-8 Purity 97%	(Lot 877605-14)	2,506.0 µg/mL	+/- 14.7066 +/- 133.3785 +/- 133.5256	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	Benzyl chloride CAS # 100-44-7 Purity 99%	(Lot SHBB7346V)	2,501.0 µg/mL	+/- 14.6773 +/- 133.1127 +/- 133.2594	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	1,3,5-Trichlorobenzene CAS # 108-70-3 Purity 99%	(Lot 11319AS)	2,504.5 µg/mL	+/- 14.6978 +/- 133.2989 +/- 133.4459	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
Solvent:	P&T Methanol CAS # 67-56-1 Purity 99%					



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis

4 x/mL
REC 2/3/15 One



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569728 Lot No.: A0108216

Description : 8260 List 3/ Std#1 Polar Additions (2015)
8260 List 3/ Std#1 Polar Additions (2015) 2500-100,000 µg/ml, 1 ml/ampul

Container Size : 2 ml Pkg Amt: > 1 mL
Expiration Date : January 31, 2017 Storage: 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Ethanol CAS # 64-17-5 Purity 99% (Lot PG0219)	100,006.7 µg/mL	+/- 585.5308 µg/mL	+/- 3,484.8988 µg/mL	+/- 3,604.3075 µg/mL	Gravimetric Unstressed Stressed
2	Acetonitrile CAS # 75-05-8 Purity 99% (Lot SHBB3177V)	25,004.7 µg/mL	+/- 146.4078 µg/mL	+/- 871.3305 µg/mL	+/- 901.1862 µg/mL	Gravimetric Unstressed Stressed
3	Diisopropyl ether (DIPE) CAS # 108-20-3 Purity 99% (Lot SHBB6268V)	2,501.3 µg/mL	+/- 14.6792 µg/mL	+/- 87.1689 µg/mL	+/- 90.1553 µg/mL	Gravimetric Unstressed Stressed
4	Ethyl-tert-butyl ether (ETBE) CAS # 637-92-3 Purity 99% (Lot MKBR1623V)	2,500.7 µg/mL	+/- 14.6753 µg/mL	+/- 87.1456 µg/mL	+/- 90.1313 µg/mL	Gravimetric Unstressed Stressed
5	Propionitrile CAS # 107-12-0 Purity 99% (Lot BCBK0700V)	25,001.3 µg/mL	+/- 146.3883 µg/mL	+/- 871.2144 µg/mL	+/- 901.0661 µg/mL	Gravimetric Unstressed Stressed
6	tert-Amyl alcohol CAS # 75-85-4 Purity 99% (Lot STBB1898V)	25,006.0 µg/mL	+/- 146.4156 µg/mL	+/- 871.3770 µg/mL	+/- 901.2343 µg/mL	Gravimetric Unstressed Stressed
7	tert-Amyl methyl ether (TAME) CAS # 994-05-8 Purity 99% (Lot OS1028/4V)	2,502.0 µg/mL	+/- 14.6831 µg/mL	+/- 87.1921 µg/mL	+/- 90.1793 µg/mL	Gravimetric Unstressed Stressed



Sodium Chloride, Crystal

'BAKER ANALYZED'[®] A.C.S. Reagent

Product No. 3624

Lot No. J48622

Release Date 12/07/2010

Certificate of Analysis

TEST	SPECIFICATION	RESULT
Meets A.C.S. Specifications		
Meets Reagent Specifications for testing USP/NF monographs		
Assay (NaCl) (by Ag titrn)	99.0 % min.	99.7 %
pH of 5% Solution at 25°C	5.0 - 9.0	5.2
Insoluble Matter	0.005 % max.	0.002 %
Iodide (I)	0.002 % max.	< 0.002 %
Bromide (Br)	0.01 % max.	< 0.01 %
Chlorate and Nitrate (as NO ₃)	0.003 % max.	0.002 %
Phosphate (PO ₄)	5 ppm max.	< 3 ppm
Sulfate (SO ₄)	0.004 % max.	< 0.004 %
Barium (Ba)	Passes Test	Passes Test
Heavy Metals (as Pb)	5 ppm max.	< 5 ppm
Iron (Fe)	2 ppm max.	< 2 ppm
Calcium (Ca)	0.002 % max.	0.0006 %
Magnesium (Mg)	0.001 % max.	0.0001 %
Potassium (K)	0.005 % max.	0.001 %

For Laboratory, Research or Manufacturing Use

Country of Origin: USA

ISO

Phillipsburg, NJ 9001:2008 & 14001:2004
 Paris, KY 9001:2008
 Mexico City, Mexico 9001:2008
 Deventer, Holland 9001:2008 & 14001:2004
 Selangor, Malaysia 9001:2008

Murray M. Mathias

Murray M. Mathias
 Director of Quality & Regulatory Affairs

For questions on this Certificate of Analysis please contact Technical Services at 1-800-582-2537 or 908-859-2151

Avantor™ Performance Materials, Inc. (formerly Mallinckrodt Baker, Inc.)

222 Red School Lane • Phillipsburg, NJ 08865 • Phone: 908.859.2151 • Fax: 908.859.6905

Certification Summary

Client: GSI Environmental, Inc
 Project/Site: GSI - McConnell AFB - SWMU 207

TestAmerica Job ID: 280-70279-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Denver	A2LA	DoD ELAP		2907.01
TestAmerica Denver	A2LA	ISO/IEC 17025		2907.01
TestAmerica Denver	Alaska (UST)	State Program	10	UST-30
TestAmerica Denver	Arizona	State Program	9	AZ0713
TestAmerica Denver	Arkansas DEQ	State Program	6	88-0687
TestAmerica Denver	California	State Program	9	2513
TestAmerica Denver	Connecticut	State Program	1	PH-0686
TestAmerica Denver	Florida	NELAP	4	E87667
TestAmerica Denver	Georgia	State Program	4	N/A
TestAmerica Denver	Illinois	NELAP	5	200017
TestAmerica Denver	Iowa	State Program	7	370
TestAmerica Denver	Kansas	NELAP	7	E-10166
TestAmerica Denver	Louisiana	NELAP	6	02096
TestAmerica Denver	Maine	State Program	1	CO0002
TestAmerica Denver	Minnesota	NELAP	5	8-999-405
TestAmerica Denver	Nevada	State Program	9	CO0026
TestAmerica Denver	New Hampshire	NELAP	1	205310
TestAmerica Denver	New Jersey	NELAP	2	CO004
TestAmerica Denver	New York	NELAP	2	11964
TestAmerica Denver	North Carolina (WW/SW)	State Program	4	358
TestAmerica Denver	North Dakota	State Program	8	R-034
TestAmerica Denver	Oklahoma	State Program	6	8614
TestAmerica Denver	Oregon	NELAP	10	4025
TestAmerica Denver	Pennsylvania	NELAP	3	68-00664
TestAmerica Denver	South Carolina	State Program	4	72002001
TestAmerica Denver	Texas	NELAP	6	T104704183-13-8
TestAmerica Denver	USDA	Federal		P330-13-00202
TestAmerica Denver	Utah	NELAP	8	CO00026
TestAmerica Denver	Virginia	NELAP	3	460232
TestAmerica Denver	Washington	State Program	10	C583
TestAmerica Denver	West Virginia DEP	State Program	3	354
TestAmerica Denver	Wisconsin	State Program	5	999615430
TestAmerica Denver	Wyoming (UST)	A2LA	8	2907.01

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method 8260B

Volatile Organic Compounds (GC/MS) by
Method 8260B

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Denver

Job No.: 280-70279-1

SDG No.: _____

Matrix: Water

Level: Low

GC Column (1): DB-624 (75. ID: 0.53 (mm))

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
54403-TB19-0615	280-70279-1	111	105	99	101
54402-EB18-0615	280-70279-2	108	97	102	105
54400-MW43-0615	280-70279-3	108	100	104	107
54400-MW56-0615	280-70279-4	109	99	102	105
54400-MW55S-0615	280-70279-5	107	95	99	104
54400-MW55D-0615	280-70279-6	108	98	101	104
	MB 280-281058/6	108	97	103	104
	MB 280-281475/6	103	100	98	97
	LCS 280-281058/4	107	100	105	102
	LCS 280-281475/4	107	107	106	101

DBFM = Dibromofluoromethane (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)

QC LIMITS
80-119
81-118
89-112
85-114

Column to be used to flag recovery values

FORM II 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Denver

Job No.: 280-70279-1

SDG No.: _____

Matrix: Water Level: Low

Lab File ID: Z8589.D

Lab ID: LCS 280-281058/4

Client ID: _____

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	5.00	4.59	92	78-124	
1,1,1-Trichloroethane	5.00	4.71	94	74-131	
1,1,2,2-Tetrachloroethane	5.00	4.42	88	71-121	
1,1,2-Trichloroethane	5.00	4.89	98	80-119	
1,1-Dichloroethane	5.00	4.41	88	77-125	
1,1-Dichloroethene	5.00	4.87	97	71-131	
1,1-Dichloropropene	5.00	4.91	98	79-125	
1,2,3-Trichlorobenzene	5.00	4.67	93	69-129	
1,2,3-Trichloropropane	5.00	3.96	79	73-122	
1,2,4-Trichlorobenzene	5.00	4.79	96	69-130	
1,2,4-Trimethylbenzene	5.00	4.42	88	76-124	
1,2-Dibromo-3-Chloropropane	5.00	4.10 J	82	62-128	
1,2-Dibromoethane	5.00	4.12	82	77-121	
1,2-Dichlorobenzene	5.00	4.70	94	80-119	
1,2-Dichloroethane	5.00	4.27	85	73-128	
1,2-Dichloropropane	5.00	4.22	84	78-122	
1,3,5-Trimethylbenzene	5.00	4.48	90	75-124	
1,3-Dichlorobenzene	5.00	4.78	96	80-119	
1,3-Dichloropropane	5.00	4.15	83	80-119	
1,4-Dichlorobenzene	5.00	4.71	94	79-118	
2,2-Dichloropropane	5.00	4.67	93	60-139	
2-Butanone (MEK)	20.0	17.3	87	56-143	
2-Chlorotoluene	5.00	4.79	96	79-122	M
2-Hexanone	20.0	15.9	80	57-139	
4-Chlorotoluene	5.00	4.68	94	78-122	
4-Methyl-2-pentanone (MIBK)	20.0	17.3	87	67-130	
Acetone	20.0	17.3	86	39-160	M
Benzene	5.00	4.87	97	79-120	
Bromobenzene	5.00	4.66	93	80-120	
Bromochloromethane	5.00	5.22	104	78-123	
Bromodichloromethane	5.00	4.64	93	79-125	
Bromoform	5.00	4.32	86	66-130	
Bromomethane	5.00	5.25	105	53-141	
Carbon disulfide	5.00	4.66	93	64-133	
Carbon tetrachloride	5.00	4.85	97	72-136	
Chlorobenzene	5.00	4.68	94	82-118	
Chlorodibromomethane	5.00	4.48	90	74-126	
Chloroethane	5.00	5.40	108	60-138	
Chloroform	5.00	4.70	94	79-124	
Chloromethane	5.00	5.11	102	50-139	M
cis-1,2-Dichloroethene	5.00	4.99	100	78-123	
cis-1,3-Dichloropropene	5.00	4.23	85	75-124	

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Matrix: Water Level: Low Lab File ID: Z8589.D

Lab ID: LCS 280-281058/4 Client ID: _____

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dibromomethane	5.00	4.62	92	79-123	
Dichlorodifluoromethane	5.00	5.64	113	32-152	
Ethylbenzene	5.00	4.49	90	79-121	
Hexachlorobutadiene	5.00	4.71	94	66-134	
Isopropylbenzene	5.00	4.52	90	72-131	
Methyl tert-butyl ether	5.00	4.76 J	95	71-124	
Methylene Chloride	5.00	5.30	106	74-124	
m-Xylene & p-Xylene	5.00	4.55	91	80-121	
Naphthalene	5.00	4.80	96	61-128	
n-Butylbenzene	5.00	4.48	90	75-128	
N-Propylbenzene	5.00	4.85	97	76-126	
o-Xylene	5.00	4.61	92	78-122	
p-Isopropyltoluene	5.00	4.80	96	77-127	
sec-Butylbenzene	5.00	4.90	98	77-126	
Styrene	5.00	4.43	89	78-123	
tert-Butyl alcohol	50.0	52.8	106	68-129	
tert-Butylbenzene	5.00	4.82	96	78-124	
Tetrachloroethene	5.00	4.72	94	74-129	
Toluene	5.00	4.72	94	80-121	
trans-1,2-Dichloroethene	5.00	5.28	106	75-124	
trans-1,3-Dichloropropene	5.00	4.82	96	73-127	
Trichloroethene	5.00	4.91	98	79-123	
Trichlorofluoromethane	5.00	4.79	96	65-141	
Vinyl chloride	5.00	5.15	103	58-137	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Denver

Job No.: 280-70279-1

SDG No.: _____

Matrix: Water Level: Low

Lab File ID: H3592.D

Lab ID: LCS 280-281475/4

Client ID: _____

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	5.00	4.18	84	78-124	
1,1,1-Trichloroethane	5.00	4.41	88	74-131	
1,1,2,2-Tetrachloroethane	5.00	4.15	83	71-121	
1,1,2-Trichloroethane	5.00	4.31	86	80-119	
1,1-Dichloroethane	5.00	4.43	89	77-125	
1,1-Dichloroethene	5.00	4.28	86	71-131	
1,1-Dichloropropene	5.00	4.54	91	79-125	
1,2,3-Trichlorobenzene	5.00	4.20	84	69-129	
1,2,3-Trichloropropane	5.00	4.09	82	73-122	
1,2,4-Trichlorobenzene	5.00	4.18	84	69-130	
1,2,4-Trimethylbenzene	5.00	4.04	81	76-124	
1,2-Dibromo-3-Chloropropane	5.00	4.30 J	86	62-128	
1,2-Dibromoethane	5.00	4.22	84	77-121	
1,2-Dichlorobenzene	5.00	4.11	82	80-119	
1,2-Dichloroethane	5.00	4.57	91	73-128	
1,2-Dichloropropane	5.00	4.35	87	78-122	
1,3,5-Trimethylbenzene	5.00	4.05	81	75-124	
1,3-Dichlorobenzene	5.00	4.00	80	80-119	
1,3-Dichloropropane	5.00	4.26	85	80-119	
1,4-Dichlorobenzene	5.00	4.17	83	79-118	
2,2-Dichloropropane	5.00	4.37	87	60-139	
2-Butanone (MEK)	20.0	22.5	113	56-143	
2-Chlorotoluene	5.00	4.06	81	79-122	
2-Hexanone	20.0	20.1	101	57-139	
4-Chlorotoluene	5.00	4.10	82	78-122	
4-Methyl-2-pentanone (MIBK)	20.0	22.5	112	67-130	
Acetone	20.0	20.2	101	39-160	
Benzene	5.00	4.47	89	79-120	
Bromobenzene	5.00	4.22	84	80-120	
Bromochloromethane	5.00	4.49	90	78-123	
Bromodichloromethane	5.00	4.37	87	79-125	
Bromoform	5.00	4.35	87	66-130	
Bromomethane	5.00	5.42	108	53-141	
Carbon disulfide	5.00	4.06	81	64-133	
Carbon tetrachloride	5.00	4.56	91	72-136	
Chlorobenzene	5.00	4.17	83	82-118	
Chlorodibromomethane	5.00	4.28	86	74-126	
Chloroethane	5.00	5.54	111	60-138	
Chloroform	5.00	4.50	90	79-124	
Chloromethane	5.00	5.09	102	50-139	
cis-1,2-Dichloroethene	5.00	4.52	90	78-123	
cis-1,3-Dichloropropene	5.00	4.41	88	75-124	

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Matrix: Water Level: Low Lab File ID: H3592.D

Lab ID: LCS 280-281475/4 Client ID: _____

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dibromomethane	5.00	4.42	88	79-123	
Dichlorodifluoromethane	5.00	5.72	114	32-152	
Ethylbenzene	5.00	4.18	84	79-121	
Hexachlorobutadiene	5.00	4.09	82	66-134	
Isopropylbenzene	5.00	4.09	82	72-131	
Methyl tert-butyl ether	5.00	4.57 J	91	71-124	
Methylene Chloride	5.00	4.76 J	95	74-124	
m-Xylene & p-Xylene	5.00	4.05	81	80-121	
Naphthalene	5.00	4.18	84	61-128	
n-Butylbenzene	5.00	3.96	79	75-128	
N-Propylbenzene	5.00	4.07	81	76-126	
o-Xylene	5.00	4.17	83	78-122	
p-Isopropyltoluene	5.00	4.06	81	77-127	
sec-Butylbenzene	5.00	4.04	81	77-126	
Styrene	5.00	4.11	82	78-123	
tert-Butyl alcohol	50.0	43.6 J	87	68-129	
tert-Butylbenzene	5.00	3.99	80	78-124	
Tetrachloroethene	5.00	4.20	84	74-129	
Toluene	5.00	4.46	89	80-121	
trans-1,2-Dichloroethene	5.00	4.45	89	75-124	
trans-1,3-Dichloropropene	5.00	4.74	95	73-127	
Trichloroethene	5.00	4.56	91	79-123	
Trichlorofluoromethane	5.00	5.64	113	65-141	
Vinyl chloride	5.00	5.31	106	58-137	

Column to be used to flag recovery and RPD values

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Lab File ID: Z8588.D Lab Sample ID: MB 280-281058/6
 Matrix: Water Heated Purge: (Y/N) N
 Instrument ID: VMS_Z Date Analyzed: 06/09/2015 18:56
 GC Column: DB-624 (75.53) ID: 0.53 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 280-281058/4	Z8589.D	06/09/2015 19:19
54402-EB18-0615	280-70279-2	Z8594.D	06/09/2015 21:19
54400-MW43-0615	280-70279-3	Z8595.D	06/09/2015 21:42
54400-MW56-0615	280-70279-4	Z8596.D	06/09/2015 22:05
54400-MW55S-0615	280-70279-5	Z8597.D	06/09/2015 22:27
54400-MW55D-0615	280-70279-6	Z8598.D	06/09/2015 22:50

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Lab File ID: H3594.D Lab Sample ID: MB 280-281475/6
 Matrix: Water Heated Purge: (Y/N) N
 Instrument ID: VMS_H Date Analyzed: 06/11/2015 20:35
 GC Column: DB-624 (75.53) ID: 0.53 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 280-281475/4	H3592.D	06/11/2015 19:50
54403-TB19-0615	280-70279-1	H3618.D	06/12/2015 05:45

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Lab File ID: H2946.D BFB Injection Date: 05/27/2015
 Instrument ID: VMS_H BFB Injection Time: 23:12
 Analysis Batch No.: 279265

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	21.4
75	30.0 - 60.0 % of mass 95	47.5
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	6.6
173	Less than 2.0 % of mass 174	0.0 (0.0)1
174	50.0 - 120.00 % of mass 95	61.4
175	5.0 - 9.0 % of mass 174	4.3 (7.0)1
176	95.0 - 101.0 % of mass 174	59.7 (97.2)1
177	5.0 - 9.0 % of mass 176	4.5 (7.5)2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 280-279265/9	H2949.D	05/28/2015	00:18
	IC 280-279265/10	H2950.D	05/28/2015	00:40
	IC 280-279265/11	H2951.D	05/28/2015	01:03
	IC 280-279265/12	H2952.D	05/28/2015	01:25
	IC 280-279265/13	H2953.D	05/28/2015	01:48
	IC 280-279265/14	H2954.D	05/28/2015	02:10
	IC 280-279265/15	H2955.D	05/28/2015	02:33
	ICV 280-279265/22	H2956.D	05/28/2015	02:55
	IC 280-279265/16	H2957.D	05/28/2015	03:18
	IC 280-279265/17	H2958.D	05/28/2015	03:40
	IC 280-279265/18	H2959.D	05/28/2015	04:03
	ICIS 280-279265/19	H2960.D	05/28/2015	04:25
	IC 280-279265/20	H2961.D	05/28/2015	04:48
	IC 280-279265/21	H2962.D	05/28/2015	05:10
	ICV 280-279265/23	H2963.D	05/28/2015	05:32

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Lab File ID: H3589.D BFB Injection Date: 06/11/2015
 Instrument ID: VMS_H BFB Injection Time: 18:47
 Analysis Batch No.: 281475

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	22.2
75	30.0 - 60.0 % of mass 95	50.6
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	6.6
173	Less than 2.0 % of mass 174	0.0 (0.0)1
174	50.0 - 120.00 % of mass 95	61.2
175	5.0 - 9.0 % of mass 174	4.8 (7.9)1
176	95.0 - 101.0 % of mass 174	60.2 (98.5)1
177	5.0 - 9.0 % of mass 176	3.9 (6.5)2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 280-281475/2	H3590.D	06/11/2015	19:03
	CCV 280-281475/3	H3591.D	06/11/2015	19:25
	LCS 280-281475/4	H3592.D	06/11/2015	19:50
	MB 280-281475/6	H3594.D	06/11/2015	20:35
54403-TB19-0615	280-70279-1	H3618.D	06/12/2015	05:45
	CCVC 280-281475/33	H3619.D	06/12/2015	06:08

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Lab File ID: Z8218.D BFB Injection Date: 06/01/2015
 Instrument ID: VMS_Z BFB Injection Time: 19:09
 Analysis Batch No.: 279871

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	16.7
75	30.0 - 60.0 % of mass 95	47.6
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	7.3
173	Less than 2.0 % of mass 174	0.0 (0.0)1
174	50.0 - 120.00 % of mass 95	76.6
175	5.0 - 9.0 % of mass 174	5.7 (7.5)1
176	95.0 - 101.0 % of mass 174	76.6 (100.0)1
177	5.0 - 9.0 % of mass 176	4.9 (6.4)2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 280-279871/9	Z8220.D	06/01/2015	19:51
	IC 280-279871/10	Z8221.D	06/01/2015	20:14
	IC 280-279871/11	Z8222.D	06/01/2015	20:36
	IC 280-279871/12	Z8223.D	06/01/2015	20:59
	IC 280-279871/13	Z8224.D	06/01/2015	21:22
	IC 280-279871/14	Z8225.D	06/01/2015	21:45
	IC 280-279871/15	Z8226.D	06/01/2015	22:07
	ICV 280-279871/22	Z8227.D	06/01/2015	22:30
	IC 280-279871/16	Z8228.D	06/01/2015	23:13
	IC 280-279871/17	Z8229.D	06/01/2015	23:35
	IC 280-279871/18	Z8230.D	06/01/2015	23:58
	ICIS 280-279871/19	Z8231.D	06/02/2015	00:21
	IC 280-279871/20	Z8232.D	06/02/2015	00:43
	IC 280-279871/21	Z8233.D	06/02/2015	01:06
	ICV 280-279871/23	Z8234.D	06/02/2015	01:29
	ICV 280-279871/24	Z8235.D	06/02/2015	01:51

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Lab File ID: Z8584.D BFB Injection Date: 06/09/2015
 Instrument ID: VMS_Z BFB Injection Time: 17:29
 Analysis Batch No.: 281058

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	15.9
75	30.0 - 60.0 % of mass 95	43.5
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	7.2
173	Less than 2.0 % of mass 174	0.0 (0.0)1
174	50.0 - 120.00 % of mass 95	83.4
175	5.0 - 9.0 % of mass 174	6.2 (7.4)1
176	95.0 - 101.0 % of mass 174	81.5 (97.8)1
177	5.0 - 9.0 % of mass 176	5.6 (6.8)2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 280-281058/2	Z8585.D	06/09/2015	17:45
	CCV 280-281058/3	Z8586.D	06/09/2015	18:08
	MB 280-281058/6	Z8588.D	06/09/2015	18:56
	LCS 280-281058/4	Z8589.D	06/09/2015	19:19
54402-EB18-0615	280-70279-2	Z8594.D	06/09/2015	21:19
54400-MW43-0615	280-70279-3	Z8595.D	06/09/2015	21:42
54400-MW56-0615	280-70279-4	Z8596.D	06/09/2015	22:05
54400-MW55S-0615	280-70279-5	Z8597.D	06/09/2015	22:27
54400-MW55D-0615	280-70279-6	Z8598.D	06/09/2015	22:50
	CCVC 280-281058/17	Z8599.D	06/09/2015	23:13

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Sample No.: ICIS 280-279265/19 Date Analyzed: 05/28/2015 04:25
 Instrument ID: VMS_H GC Column: DB-624 (75.53) ID: 0.53 (mm)
 Lab File ID (Standard): H2960.D Heated Purge: (Y/N) N
 Calibration ID: 22417

	TBA		FB		CBZ		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
INITIAL CALIBRATION MID-POINT	211144	3.97	1108417	6.76	256513	11.09	
UPPER LIMIT	422288	4.47	2216834	7.26	513026	11.59	
LOWER LIMIT	105572	3.47	554209	6.26	128257	10.59	
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-279265/23		204860	3.97	1164628	6.76	280885	11.11
CCV 280-281475/2		245830	3.98	1092324	6.76	259640	11.11
CCV 280-281475/3		259552	3.99	1184349	6.77	295559	11.11
LCS 280-281475/4		247402	3.97	1145067	6.76	269029	11.11
MB 280-281475/6		221867	3.99	1148576	6.76	277852	11.11
280-70279-1	54403-TB19-0615	233275	3.97	1119128	6.76	279490	11.11
CCVC 280-281475/33		233324	3.99	1099614	6.77	252176	11.11

TBA = TBA-d9 (IS)
 FB = Fluorobenzene
 CBZ = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area
 RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Sample No.: ICIS 280-279265/19 Date Analyzed: 05/28/2015 04:25
 Instrument ID: VMS_H GC Column: DB-624 (75.53) ID: 0.53 (mm)
 Lab File ID (Standard): H2960.D Heated Purge: (Y/N) N
 Calibration ID: 22417

	DCB					
	AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT	390191	14.11				
UPPER LIMIT	780382	14.61				
LOWER LIMIT	195096	13.61				
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICV 280-279265/23		430424	14.12			
CCV 280-281475/2		445079	14.11			
CCV 280-281475/3		455438	14.12			
LCS 280-281475/4		450105	14.12			
MB 280-281475/6		427589	14.12			
280-70279-1	54403-TB19-0615	425321	14.12			
CCVC 280-281475/33		439190	14.12			

DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
 RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Sample No.: ICIS 280-279871/19 Date Analyzed: 06/02/2015 00:21
 Instrument ID: VMS_Z GC Column: DB-624 (75.53) ID: 0.53 (mm)
 Lab File ID (Standard): Z8231.D Heated Purge: (Y/N) N
 Calibration ID: 22471

	TBA		FB		CBZ		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
INITIAL CALIBRATION MID-POINT	142858	3.47	882208	6.38	217317	11.02	
UPPER LIMIT	285716	3.97	1764416	6.88	434634	11.52	
LOWER LIMIT	71429	2.97	441104	5.88	108659	10.52	
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-279871/22		155997	3.48	886535	6.37	216022	11.02
ICV 280-279871/23		140944	3.48	889890	6.37	218952	11.02
ICV 280-279871/24		143022	3.48	892830	6.37	217265	11.02
CCV 280-281058/2		177554	3.47	850518	6.39	222411	11.04
CCV 280-281058/3		148382	3.48	808191	6.39	216968	11.02
MB 280-281058/6		133706	3.47	785664	6.39	209551	11.02
LCS 280-281058/4		148361	3.46	814725	6.39	211622	11.03
280-70279-2	54402-EB18-0615	133639	3.48	830531	6.37	223162	11.02
280-70279-3	54400-MW43-0615	128101	3.47	769180	6.37	201230	11.02
280-70279-4	54400-MW56-0615	151903	3.46	814170	6.39	220395	11.01
280-70279-5	54400-MW55S-0615	147230	3.47	826092	6.37	221477	11.02
280-70279-6	54400-MW55D-0615	144721	3.47	821200	6.37	221201	11.02
CCVC 280-281058/17		136631	3.48	795408	6.38	199142	11.01

TBA = TBA-d9 (IS)
 FB = Fluorobenzene
 CBZ = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area
 RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Sample No.: ICIS 280-279871/19 Date Analyzed: 06/02/2015 00:21
 Instrument ID: VMS_Z GC Column: DB-624 (75.53) ID: 0.53 (mm)
 Lab File ID (Standard): Z8231.D Heated Purge: (Y/N) N
 Calibration ID: 22471

	DCB					
	AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT	337853	15.11				
UPPER LIMIT	675706	15.61				
LOWER LIMIT	168927	14.61				
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICV 280-279871/22		345055	15.11			
ICV 280-279871/23		336059	15.11			
ICV 280-279871/24		337271	15.11			
CCV 280-281058/2		352827	15.13			
CCV 280-281058/3		333445	15.12			
MB 280-281058/6		326176	15.13			
LCS 280-281058/4		338628	15.12			
280-70279-2	54402-EB18-0615	338960	15.13			
280-70279-3	54400-MW43-0615	311402	15.13			
280-70279-4	54400-MW56-0615	332791	15.12			
280-70279-5	54400-MW55S-0615	341089	15.13			
280-70279-6	54400-MW55D-0615	341767	15.12			
CCVC 280-281058/17		324891	15.12			

DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
 RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Client Sample ID: 54403-TB19-0615 Lab Sample ID: 280-70279-1
 Matrix: Water Lab File ID: H3618.D
 Analysis Method: 8260B Date Collected: 06/04/2015 09:00
 Sample wt/vol: 20 (mL) Date Analyzed: 06/12/2015 05:45
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 281475 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	0.80	U	1.0	0.80	0.17
71-55-6	1,1,1-Trichloroethane	0.40	U	1.0	0.40	0.16
79-34-5	1,1,2,2-Tetrachloroethane	0.80	U	1.0	0.80	0.20
79-00-5	1,1,2-Trichloroethane	0.80	U	1.0	0.80	0.32
75-34-3	1,1-Dichloroethane	0.80	U	1.0	0.80	0.16
75-35-4	1,1-Dichloroethene	0.80	U	1.0	0.80	0.14
563-58-6	1,1-Dichloropropene	0.40	U	1.0	0.40	0.15
87-61-6	1,2,3-Trichlorobenzene	0.80	U	1.0	0.80	0.18
96-18-4	1,2,3-Trichloropropane	0.80	U	3.0	0.80	0.77
120-82-1	1,2,4-Trichlorobenzene	0.80	U	1.0	0.80	0.32
95-63-6	1,2,4-Trimethylbenzene	0.40	U	1.0	0.40	0.14
96-12-8	1,2-Dibromo-3-Chloropropane	1.6	U	5.0	1.6	0.81
106-93-4	1,2-Dibromoethane	0.40	U	1.0	0.40	0.18
95-50-1	1,2-Dichlorobenzene	0.40	U	1.0	0.40	0.13
107-06-2	1,2-Dichloroethane	0.40	U	1.0	0.40	0.13
78-87-5	1,2-Dichloropropane	0.40	U	1.0	0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	0.40	U	1.0	0.40	0.14
541-73-1	1,3-Dichlorobenzene	0.40	U	1.0	0.40	0.16
142-28-9	1,3-Dichloropropane	0.80	U	1.0	0.80	0.15
106-46-7	1,4-Dichlorobenzene	0.40	U	1.0	0.40	0.16
594-20-7	2,2-Dichloropropane	0.40	U	1.0	0.40	0.20
78-93-3	2-Butanone (MEK)	4.0	U	6.0	4.0	1.8
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40	0.17
591-78-6	2-Hexanone	4.0	U	5.0	4.0	1.4
106-43-4	4-Chlorotoluene	0.80	U	1.0	0.80	0.17
108-10-1	4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	1.0
67-64-1	Acetone	6.4	U	10	6.4	1.9
71-43-2	Benzene	0.40	U	1.0	0.40	0.16
108-86-1	Bromobenzene	0.40	U	1.0	0.40	0.17
74-97-5	Bromochloromethane	0.20	U	1.0	0.20	0.10
75-27-4	Bromodichloromethane	0.40	U	1.0	0.40	0.17
75-25-2	Bromoform	0.40	U	1.0	0.40	0.19
74-83-9	Bromomethane	0.80	U	2.0	0.80	0.21
75-15-0	Carbon disulfide	1.6	U	2.0	1.6	0.45
56-23-5	Carbon tetrachloride	0.40	U	2.0	0.40	0.19
108-90-7	Chlorobenzene	0.40	U	1.0	0.40	0.17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Client Sample ID: 54403-TB19-0615 Lab Sample ID: 280-70279-1
 Matrix: Water Lab File ID: H3618.D
 Analysis Method: 8260B Date Collected: 06/04/2015 09:00
 Sample wt/vol: 20 (mL) Date Analyzed: 06/12/2015 05:45
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 281475 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
124-48-1	Chlorodibromomethane	0.40	U	1.0	0.40	0.17
75-00-3	Chloroethane	1.6	U	2.0	1.6	0.41
67-66-3	Chloroform	0.40	U	1.0	0.40	0.16
74-87-3	Chloromethane	0.80	U	2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-01-5	cis-1,3-Dichloropropene	0.40	U	1.0	0.40	0.16
74-95-3	Dibromomethane	0.40	U	1.0	0.40	0.17
75-71-8	Dichlorodifluoromethane	0.80	U	2.0	0.80	0.31
100-41-4	Ethylbenzene	0.40	U	1.0	0.40	0.16
87-68-3	Hexachlorobutadiene	0.80	U	1.0	0.80	0.36
98-82-8	Isopropylbenzene	0.40	U	1.0	0.40	0.19
1634-04-4	Methyl tert-butyl ether	0.80	U	5.0	0.80	0.25
75-09-2	Methylene Chloride	0.80	U	5.0	0.80	0.32
179601-23-1	m-Xylene & p-Xylene	0.80	U	2.0	0.80	0.34
91-20-3	Naphthalene	0.80	U	1.0	0.80	0.22
104-51-8	n-Butylbenzene	0.80	U	1.0	0.80	0.32
103-65-1	N-Propylbenzene	0.40	U	1.0	0.40	0.16
95-47-6	o-Xylene	0.40	U	1.0	0.40	0.19
99-87-6	p-Isopropyltoluene	0.40	U	1.0	0.40	0.17
135-98-8	sec-Butylbenzene	0.40	U	1.0	0.40	0.17
100-42-5	Styrene	0.40	U	1.0	0.40	0.17
75-65-0	tert-Butyl alcohol	32	U	50	32	11
98-06-6	tert-Butylbenzene	0.40	U	1.0	0.40	0.16
127-18-4	Tetrachloroethene	0.40	U	1.0	0.40	0.20
108-88-3	Toluene	0.40	U	1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-02-6	trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.19
79-01-6	Trichloroethene	0.40	U	1.0	0.40	0.16
75-69-4	Trichlorofluoromethane	0.80	U	2.0	0.80	0.29
75-01-4	Vinyl chloride	0.20	U	1.5	0.20	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Client Sample ID: 54403-TB19-0615 Lab Sample ID: 280-70279-1
 Matrix: Water Lab File ID: H3618.D
 Analysis Method: 8260B Date Collected: 06/04/2015 09:00
 Sample wt/vol: 20 (mL) Date Analyzed: 06/12/2015 05:45
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 281475 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		81-118
460-00-4	4-Bromofluorobenzene (Surr)	101		85-114
1868-53-7	Dibromofluoromethane (Surr)	111		80-119
2037-26-5	Toluene-d8 (Surr)	99		89-112

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150611-35960.b\H3618.D
 Lims ID: 280-70279-B-1 Lab Sample ID: 280-70279-1
 Client ID: 54403-TB19-0615
 Sample Type: Client
 Inject. Date: 12-Jun-2015 05:45:30 ALS Bottle#: 29 Worklist Smp#: 32
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: 280-70279-B-1 pH<2
 Operator ID: bergerb Instrument ID: VMS_H
 Method: \\Denchrom\ChromData\VMS_H\20150611-35960.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 12-Jun-2015 11:34:32 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK002

First Level Reviewer: bergerb

Date: 12-Jun-2015 11:34:44

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.972	3.987	-0.015	99	233275	250.0	
* 2 Fluorobenzene	96	6.758	6.772	-0.014	97	1119128	12.5	
* 3 1,4-Dioxane-d8	96		8.670				ND	
* 4 Chlorobenzene-d5	119	11.110	11.107	0.003	92	279490	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.122	14.119	0.003	98	425321	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.922	5.937	-0.015	93	531049	9.40	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	6.340	6.355	-0.015	83	278538	8.90	
\$ 10 Toluene-d8 (Surr)	98	8.882	8.879	0.003	95	1148061	8.42	
\$ 11 4-Bromofluorobenzene (Surr	95	12.764	12.761	0.003	80	626162	8.60	
28 Dichlorodifluoromethane	85		2.176				ND	
30 Chloromethane	50		2.263				ND	
32 Vinyl chloride	62		2.403				ND	
35 Bromomethane	94		2.681				ND	
36 Chloroethane	64		2.751				ND	
38 Trichlorofluoromethane	101		2.995				ND	
45 1,1-Dichloroethene	96		3.482				ND	
47 Acetone	43		3.517				ND	
50 Carbon disulfide	76		3.726				ND	
54 Methylene Chloride	84		3.952				ND	
55 2-Methyl-2-propanol	59		4.074				ND	
58 trans-1,2-Dichloroethene	96		4.248				ND	
56 Methyl tert-butyl ether	73		4.248				ND	
60 1,1-Dichloroethane	63		4.701				ND	
67 2-Butanone (MEK)	43		5.362				ND	
65 cis-1,2-Dichloroethene	96		5.362				ND	
66 2,2-Dichloropropane	77		5.380				ND	
73 Chlorobromomethane	128		5.658				ND	
75 Chloroform	83		5.728				ND	
76 1,1,1-Trichloroethane	97		5.989				ND	
78 1,1-Dichloropropene	75		6.163				ND	
79 Carbon tetrachloride	117		6.180				ND	
81 Benzene	78		6.424				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
82 1,2-Dichloroethane	62		6.442				ND	
86 Trichloroethene	95		7.242				ND	
90 1,2-Dichloropropane	63		7.538				ND	
92 Dibromomethane	93		7.695				ND	
94 Dichlorobromomethane	83		7.904				ND	
97 cis-1,3-Dichloropropene	75		8.496				ND	
98 4-Methyl-2-pentanone (MIBK)	43		8.722				ND	
99 Toluene	91		8.983				ND	
100 trans-1,3-Dichloropropene	75		9.279				ND	
102 1,1,2-Trichloroethane	97		9.558				ND	
103 Tetrachloroethene	164		9.767				ND	
104 1,3-Dichloropropane	76		9.802				ND	
105 2-Hexanone	43		9.924				ND	
108 Chlorodibromomethane	129		10.150				ND	
109 Ethylene Dibromide	107		10.341				ND	
111 Chlorobenzene	112		11.160				ND	
112 1,1,1,2-Tetrachloroethane	131		11.281				ND	
113 Ethylbenzene	106		11.334				ND	
114 m-Xylene & p-Xylene	106		11.508				ND	
115 o-Xylene	106		12.082				ND	
116 Styrene	104		12.100				ND	
117 Bromoform	173		12.343				ND	
118 Isopropylbenzene	105		12.570				ND	
122 Bromobenzene	156		12.953				ND	
121 1,1,2,2-Tetrachloroethane	83		12.953				ND	
123 1,2,3-Trichloropropane	110		13.005				ND	
125 N-Propylbenzene	120		13.092				ND	
126 2-Chlorotoluene	126		13.179				ND	
127 1,3,5-Trimethylbenzene	105		13.301				ND	
128 4-Chlorotoluene	126		13.318				ND	
129 tert-Butylbenzene	119		13.684				ND	
130 1,2,4-Trimethylbenzene	105		13.736				ND	
131 sec-Butylbenzene	134		13.928				ND	
132 1,3-Dichlorobenzene	146		14.050				ND	
133 4-Isopropyltoluene	119		14.084				ND	
134 1,4-Dichlorobenzene	146		14.137				ND	
137 n-Butylbenzene	91		14.520				ND	
138 1,2-Dichlorobenzene	146		14.537				ND	
139 1,2-Dibromo-3-Chloropropan	157		15.303				ND	
141 1,2,4-Trichlorobenzene	180		16.087				ND	
142 Hexachlorobutadiene	225		16.226				ND	
143 Naphthalene	128		16.313				ND	
144 1,2,3-Trichlorobenzene	180		16.539				ND	

Reagents:

MV-568718-D_00002

Amount Added: 1.00

Units: uL

Run Reagent

MV-ARCH SS A_00042

Amount Added: 0.68

Units: uL

Run Reagent

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150611-35960.b\H3618.D

Injection Date: 12-Jun-2015 05:45:30

Instrument ID: VMS_H

Operator ID: bergerb

Lims ID: 280-70279-B-1

Lab Sample ID: 280-70279-1

Worklist Smp#: 32

Client ID: 54403-TB19-0615

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

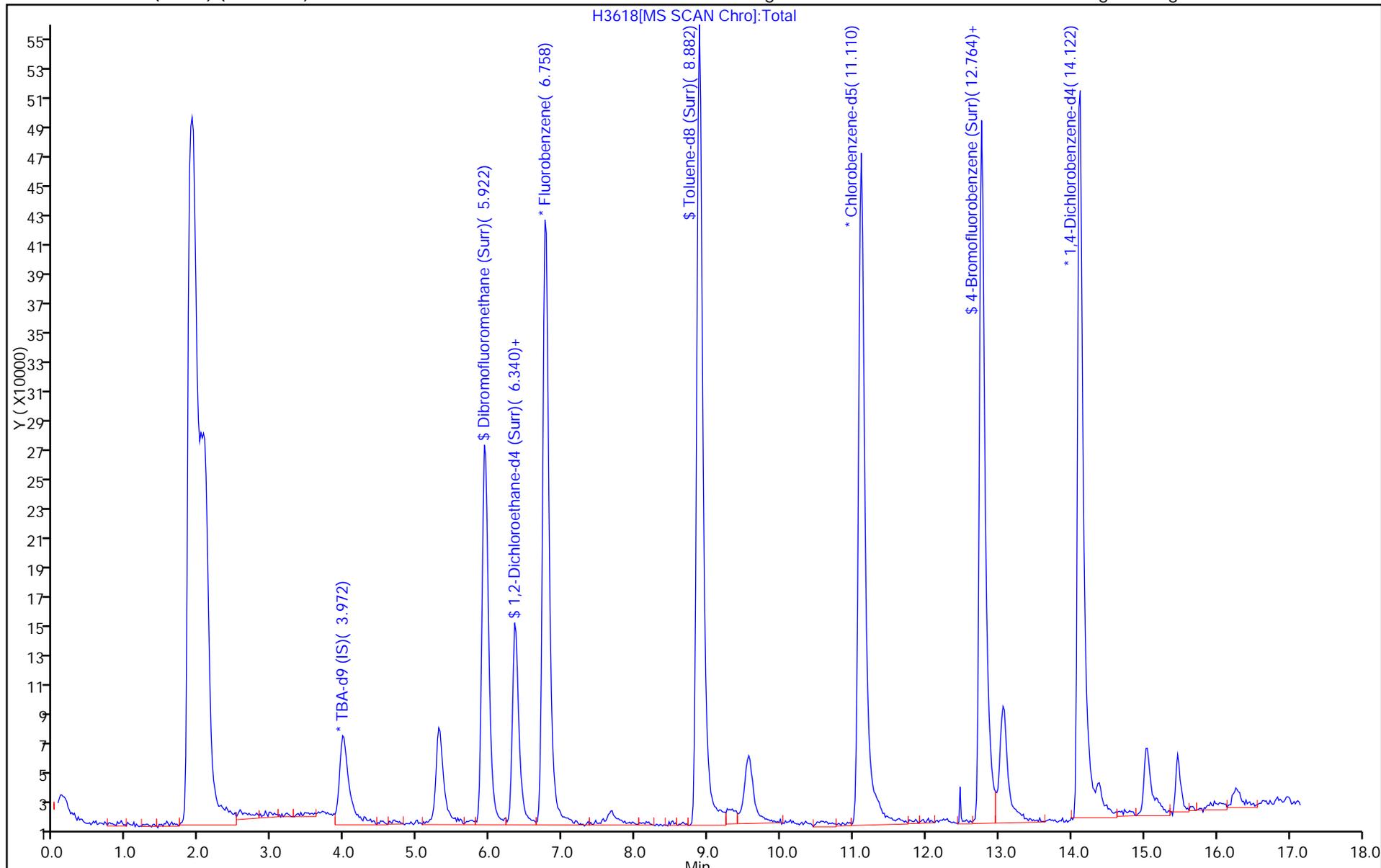
ALS Bottle#: 29

Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Client Sample ID: 54402-EB18-0615 Lab Sample ID: 280-70279-2
 Matrix: Water Lab File ID: Z8594.D
 Analysis Method: 8260B Date Collected: 06/04/2015 09:25
 Sample wt/vol: 20 (mL) Date Analyzed: 06/09/2015 21:19
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 281058 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	0.80	U	1.0	0.80	0.17
71-55-6	1,1,1-Trichloroethane	0.40	U	1.0	0.40	0.16
79-34-5	1,1,2,2-Tetrachloroethane	0.80	U	1.0	0.80	0.20
79-00-5	1,1,2-Trichloroethane	0.80	U	1.0	0.80	0.32
75-34-3	1,1-Dichloroethane	0.80	U	1.0	0.80	0.16
75-35-4	1,1-Dichloroethene	0.80	U	1.0	0.80	0.14
563-58-6	1,1-Dichloropropene	0.40	U	1.0	0.40	0.15
87-61-6	1,2,3-Trichlorobenzene	0.80	U	1.0	0.80	0.18
96-18-4	1,2,3-Trichloropropane	0.80	U	3.0	0.80	0.77
120-82-1	1,2,4-Trichlorobenzene	0.80	U	1.0	0.80	0.32
95-63-6	1,2,4-Trimethylbenzene	0.40	U	1.0	0.40	0.14
96-12-8	1,2-Dibromo-3-Chloropropane	1.6	U	5.0	1.6	0.81
106-93-4	1,2-Dibromoethane	0.40	U	1.0	0.40	0.18
95-50-1	1,2-Dichlorobenzene	0.40	U	1.0	0.40	0.13
107-06-2	1,2-Dichloroethane	0.40	U	1.0	0.40	0.13
78-87-5	1,2-Dichloropropane	0.40	U	1.0	0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	0.40	U	1.0	0.40	0.14
541-73-1	1,3-Dichlorobenzene	0.40	U	1.0	0.40	0.16
142-28-9	1,3-Dichloropropane	0.80	U	1.0	0.80	0.15
106-46-7	1,4-Dichlorobenzene	0.40	U	1.0	0.40	0.16
594-20-7	2,2-Dichloropropane	0.40	U	1.0	0.40	0.20
78-93-3	2-Butanone (MEK)	4.0	U	6.0	4.0	1.8
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40	0.17
591-78-6	2-Hexanone	4.0	U	5.0	4.0	1.4
106-43-4	4-Chlorotoluene	0.80	U	1.0	0.80	0.17
108-10-1	4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	1.0
67-64-1	Acetone	6.6	J	10	6.4	1.9
71-43-2	Benzene	0.40	U	1.0	0.40	0.16
108-86-1	Bromobenzene	0.40	U	1.0	0.40	0.17
74-97-5	Bromochloromethane	0.20	U	1.0	0.20	0.10
75-27-4	Bromodichloromethane	0.40	U	1.0	0.40	0.17
75-25-2	Bromoform	0.40	U	1.0	0.40	0.19
74-83-9	Bromomethane	0.80	U	2.0	0.80	0.21
75-15-0	Carbon disulfide	1.6	U	2.0	1.6	0.45
56-23-5	Carbon tetrachloride	0.40	U	2.0	0.40	0.19
108-90-7	Chlorobenzene	0.40	U	1.0	0.40	0.17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Client Sample ID: 54402-EB18-0615 Lab Sample ID: 280-70279-2
 Matrix: Water Lab File ID: Z8594.D
 Analysis Method: 8260B Date Collected: 06/04/2015 09:25
 Sample wt/vol: 20 (mL) Date Analyzed: 06/09/2015 21:19
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 281058 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
124-48-1	Chlorodibromomethane	0.40	U	1.0	0.40	0.17
75-00-3	Chloroethane	1.6	U	2.0	1.6	0.41
67-66-3	Chloroform	0.40	U	1.0	0.40	0.16
74-87-3	Chloromethane	0.80	U	2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-01-5	cis-1,3-Dichloropropene	0.40	U	1.0	0.40	0.16
74-95-3	Dibromomethane	0.40	U	1.0	0.40	0.17
75-71-8	Dichlorodifluoromethane	0.80	U	2.0	0.80	0.31
100-41-4	Ethylbenzene	0.40	U	1.0	0.40	0.16
87-68-3	Hexachlorobutadiene	0.80	U	1.0	0.80	0.36
98-82-8	Isopropylbenzene	0.40	U	1.0	0.40	0.19
1634-04-4	Methyl tert-butyl ether	0.80	U	5.0	0.80	0.25
75-09-2	Methylene Chloride	0.80	U	5.0	0.80	0.32
179601-23-1	m-Xylene & p-Xylene	0.80	U	2.0	0.80	0.34
91-20-3	Naphthalene	0.80	U	1.0	0.80	0.22
104-51-8	n-Butylbenzene	0.80	U	1.0	0.80	0.32
103-65-1	N-Propylbenzene	0.40	U	1.0	0.40	0.16
95-47-6	o-Xylene	0.40	U	1.0	0.40	0.19
99-87-6	p-Isopropyltoluene	0.40	U	1.0	0.40	0.17
135-98-8	sec-Butylbenzene	0.40	U	1.0	0.40	0.17
100-42-5	Styrene	0.40	U	1.0	0.40	0.17
75-65-0	tert-Butyl alcohol	32	U	50	32	11
98-06-6	tert-Butylbenzene	0.40	U	1.0	0.40	0.16
127-18-4	Tetrachloroethene	0.40	U	1.0	0.40	0.20
108-88-3	Toluene	0.40	U	1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-02-6	trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.19
79-01-6	Trichloroethene	0.40	U	1.0	0.40	0.16
75-69-4	Trichlorofluoromethane	0.80	U	2.0	0.80	0.29
75-01-4	Vinyl chloride	0.20	U	1.5	0.20	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Client Sample ID: 54402-EB18-0615 Lab Sample ID: 280-70279-2
 Matrix: Water Lab File ID: Z8594.D
 Analysis Method: 8260B Date Collected: 06/04/2015 09:25
 Sample wt/vol: 20 (mL) Date Analyzed: 06/09/2015 21:19
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 281058 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		81-118
460-00-4	4-Bromofluorobenzene (Surr)	105		85-114
1868-53-7	Dibromofluoromethane (Surr)	108		80-119
2037-26-5	Toluene-d8 (Surr)	102		89-112

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8594.D
 Lims ID: 280-70279-A-2 Lab Sample ID: 280-70279-2
 Client ID: 54402-EB18-0615
 Sample Type: Client
 Inject. Date: 09-Jun-2015 21:19:30 ALS Bottle#: 10 Worklist Smp#: 12
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: 280-70279-A-2 pH<2
 Operator ID: bergerb Instrument ID: VMS_Z
 Method: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\AQ_VMSZ_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 10-Jun-2015 15:45:19 Calib Date: 02-Jun-2015 01:06:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8233.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK012

First Level Reviewer: bergerb

Date: 10-Jun-2015 15:46:30

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.484	3.479	0.005	86	133639	250.0	
* 2 Fluorobenzene	96	6.373	6.384	-0.011	98	830531	12.5	
* 3 1,4-Dioxane-d8	96		7.292				ND	
* 4 Chlorobenzene-d5	119	11.019	11.013	0.006	83	223162	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.125	15.120	0.005	96	338960	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.468	5.462	0.006	94	449730	11.3	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	5.903	5.897	0.006	93	153179	10.2	
\$ 10 Toluene-d8 (Surr)	98	8.704	8.699	0.005	92	777298	10.7	
\$ 11 4-Bromofluorobenzene (Surr	95	13.055	13.049	0.006	91	422695	11.0	
27 Dichlorodifluoromethane	85		1.913				ND	
30 Chloromethane	50		1.982				ND	
32 Vinyl chloride	62		2.104				ND	
35 Bromomethane	94		2.330				ND	
36 Chloroethane	64		2.382				ND	
38 Trichlorofluoromethane	101		2.591				ND	
45 1,1-Dichloroethene	96		3.026				ND	
48 Acetone	43	3.049	3.026	0.023	95	7985	6.55	
50 Carbon disulfide	76		3.270				ND	
54 Methylene Chloride	84	3.467	3.461	0.006	79	5542	0.2770	
55 2-Methyl-2-propanol	59		3.566				ND	
57 trans-1,2-Dichloroethene	96		3.757				ND	
56 Methyl tert-butyl ether	73		3.774				ND	
62 1,1-Dichloroethane	63		4.192				ND	
67 2-Butanone (MEK)	43		4.853				ND	
65 cis-1,2-Dichloroethene	96		4.871				ND	
66 2,2-Dichloropropane	77		4.888				ND	
71 Chlorobromomethane	128		5.166				ND	
74 Chloroform	83		5.253				ND	
75 1,1,1-Trichloroethane	97		5.549				ND	
78 1,1-Dichloropropene	75		5.741				ND	
77 Carbon tetrachloride	117		5.775				ND	
82 1,2-Dichloroethane	62		6.002				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Benzene	78		6.002				ND	
85 Trichloroethene	95		6.907				ND	
90 1,2-Dichloropropane	63		7.202				ND	
92 Dibromomethane	93		7.376				ND	
94 Dichlorobromomethane	83		7.603				ND	
97 cis-1,3-Dichloropropene	75		8.264				ND	
98 4-Methyl-2-pentanone (MIBK)	43		8.525				ND	
99 Toluene	91		8.803				ND	
100 trans-1,3-Dichloropropene	75		9.116				ND	
102 1,1,2-Trichloroethane	97		9.412				ND	
104 1,3-Dichloropropane	76		9.673				ND	
103 Tetrachloroethene	164		9.708				ND	
105 2-Hexanone	43		9.865				ND	
107 Chlorodibromomethane	129		10.056				ND	
109 Ethylene Dibromide	107		10.230				ND	
111 Chlorobenzene	112		11.065				ND	
113 1,1,1,2-Tetrachloroethane	131		11.222				ND	
112 Ethylbenzene	106		11.274				ND	
114 m-Xylene & p-Xylene	106		11.483				ND	
115 o-Xylene	106		12.162				ND	
116 Styrene	104		12.179				ND	
117 Bromoform	173		12.457				ND	
118 Isopropylbenzene	105		12.823				ND	
121 Bromobenzene	156		13.293				ND	
122 1,1,2,2-Tetrachloroethane	83		13.310				ND	
124 1,2,3-Trichloropropane	110		13.362				ND	
123 N-Propylbenzene	120		13.536				ND	
126 2-Chlorotoluene	126		13.658				ND	
128 4-Chlorotoluene	126		13.849				ND	
127 1,3,5-Trimethylbenzene	105		13.867				ND	
129 tert-Butylbenzene	119		14.441				ND	
130 1,2,4-Trimethylbenzene	105		14.528				ND	
131 sec-Butylbenzene	134		14.841				ND	
132 1,3-Dichlorobenzene	146		14.998				ND	
133 4-Isopropyltoluene	119		15.120				ND	
134 1,4-Dichlorobenzene	146		15.154				ND	
138 1,2-Dichlorobenzene	146		15.798				ND	
137 n-Butylbenzene	91		15.850				ND	
139 1,2-Dibromo-3-Chloropropan	157		16.929				ND	
141 1,2,4-Trichlorobenzene	180		17.869				ND	
142 Hexachlorobutadiene	225		18.060				ND	
143 Naphthalene	128		18.095				ND	
144 1,2,3-Trichlorobenzene	180		18.339				ND	

Reagents:

MV-567649-D_00001

Amount Added: 1.00

Units: uL

Run Reagent

MV-ARCH SS A_00047

Amount Added: 0.84

Units: uL

Run Reagent

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8594.D

Injection Date: 09-Jun-2015 21:19:30

Instrument ID: VMS_Z

Operator ID: bergerb

Lims ID: 280-70279-A-2

Lab Sample ID: 280-70279-2

Worklist Smp#: 12

Client ID: 54402-EB18-0615

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

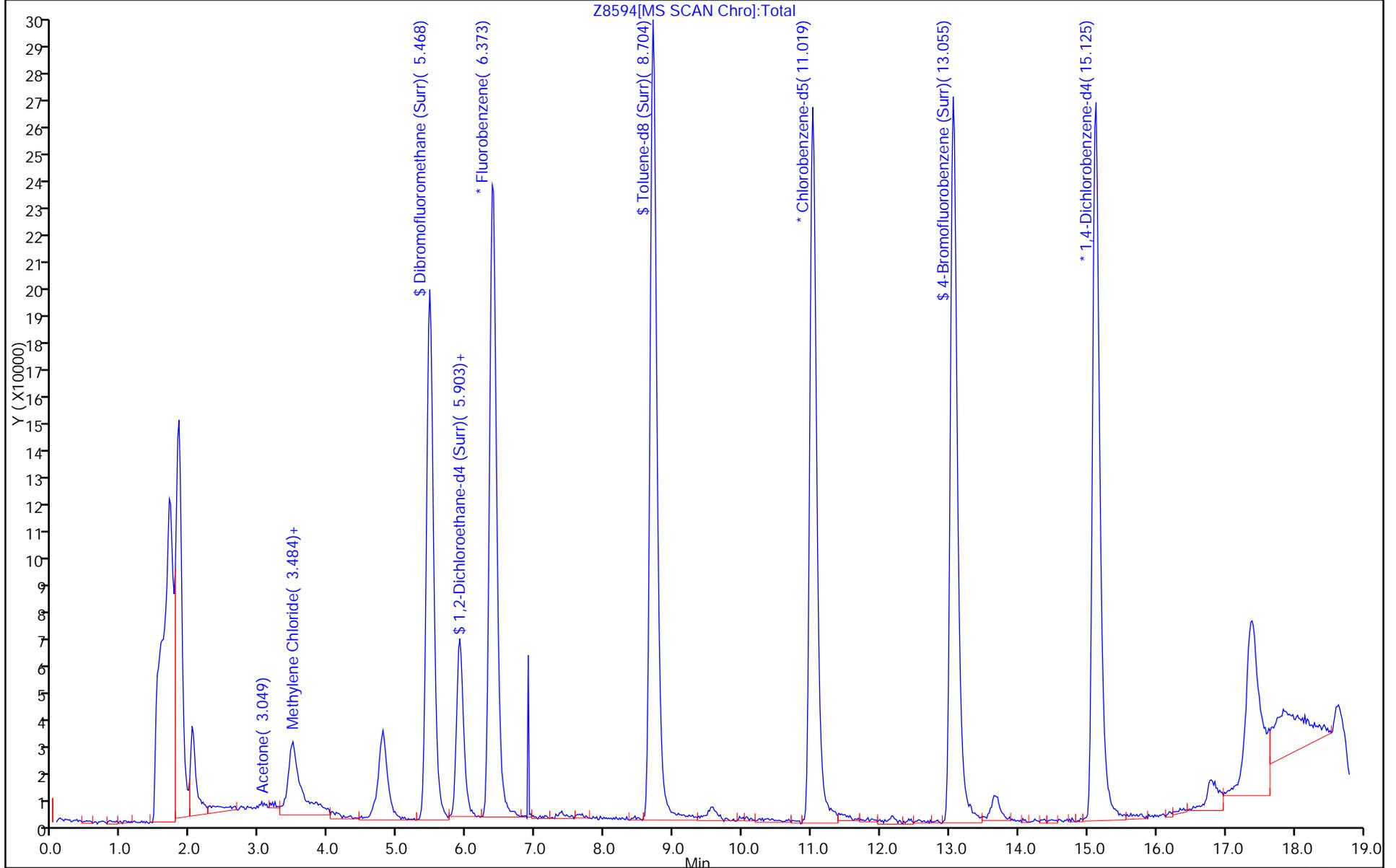
ALS Bottle#: 10

Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8594.D

Injection Date: 09-Jun-2015 21:19:30

Instrument ID: VMS_Z

Lims ID: 280-70279-A-2

Lab Sample ID: 280-70279-2

Client ID: 54402-EB18-0615

Operator ID: bergerb

ALS Bottle#: 10

Worklist Smp#: 12

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

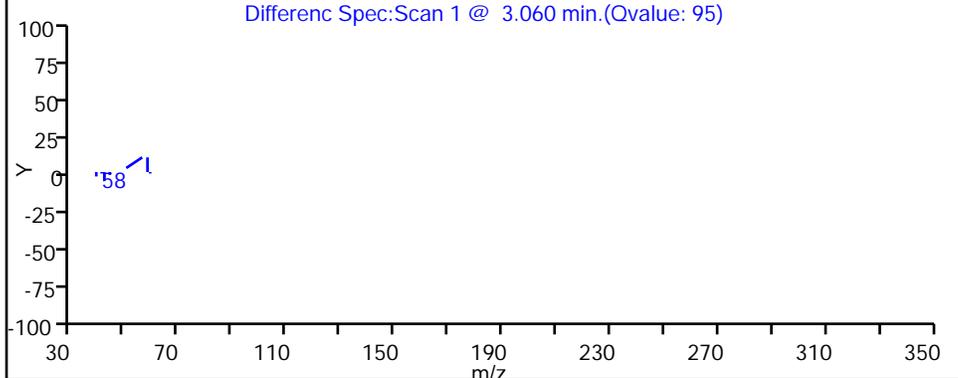
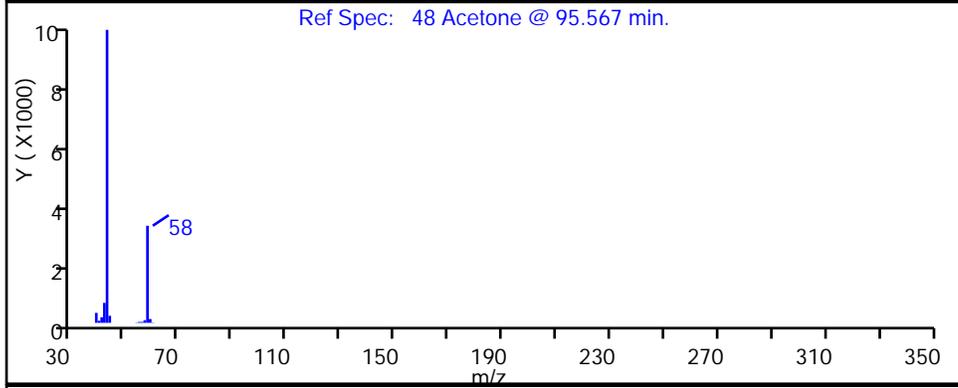
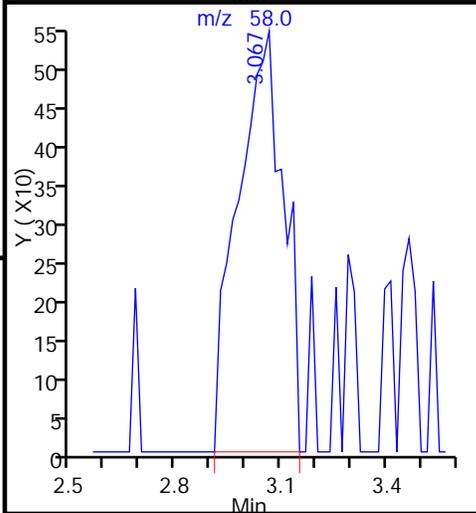
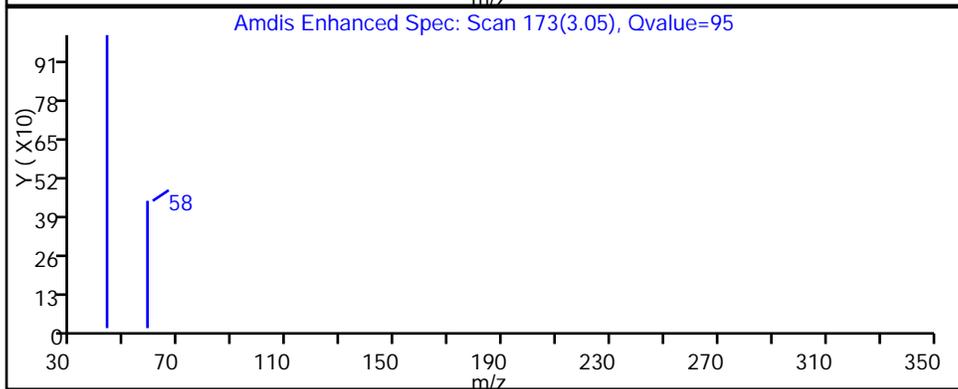
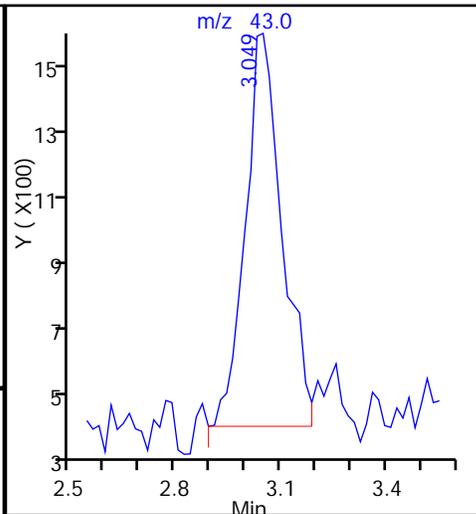
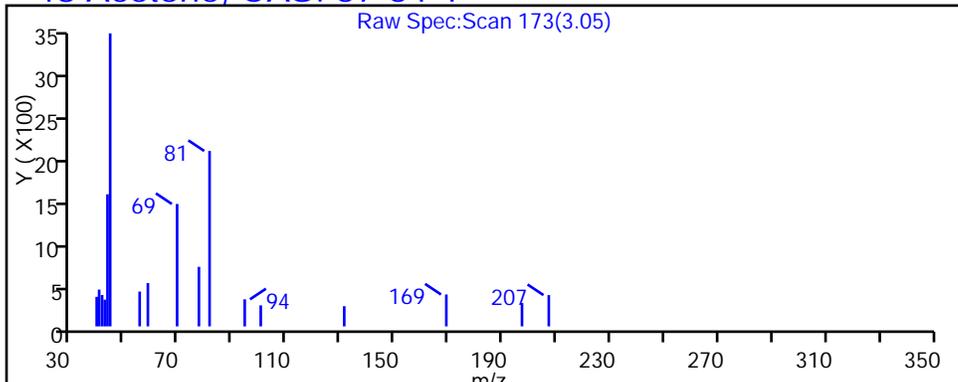
Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Detector: MS SCAN

48 Acetone, CAS: 67-64-1



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Client Sample ID: 54400-MW43-0615 Lab Sample ID: 280-70279-3
 Matrix: Water Lab File ID: Z8595.D
 Analysis Method: 8260B Date Collected: 06/04/2015 09:15
 Sample wt/vol: 20 (mL) Date Analyzed: 06/09/2015 21:42
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 281058 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	0.80	U	1.0	0.80	0.17
71-55-6	1,1,1-Trichloroethane	0.40	U	1.0	0.40	0.16
79-34-5	1,1,2,2-Tetrachloroethane	0.80	U	1.0	0.80	0.20
79-00-5	1,1,2-Trichloroethane	0.80	U	1.0	0.80	0.32
75-34-3	1,1-Dichloroethane	0.80	U	1.0	0.80	0.16
75-35-4	1,1-Dichloroethene	0.80	U	1.0	0.80	0.14
563-58-6	1,1-Dichloropropene	0.40	U	1.0	0.40	0.15
87-61-6	1,2,3-Trichlorobenzene	0.80	U	1.0	0.80	0.18
96-18-4	1,2,3-Trichloropropane	0.80	U	3.0	0.80	0.77
120-82-1	1,2,4-Trichlorobenzene	0.80	U	1.0	0.80	0.32
95-63-6	1,2,4-Trimethylbenzene	0.40	U	1.0	0.40	0.14
96-12-8	1,2-Dibromo-3-Chloropropane	1.6	U	5.0	1.6	0.81
106-93-4	1,2-Dibromoethane	0.40	U	1.0	0.40	0.18
95-50-1	1,2-Dichlorobenzene	0.40	U	1.0	0.40	0.13
107-06-2	1,2-Dichloroethane	0.40	U	1.0	0.40	0.13
78-87-5	1,2-Dichloropropane	0.21	J	1.0	0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	0.40	U	1.0	0.40	0.14
541-73-1	1,3-Dichlorobenzene	0.40	U	1.0	0.40	0.16
142-28-9	1,3-Dichloropropane	0.80	U	1.0	0.80	0.15
106-46-7	1,4-Dichlorobenzene	0.40	U	1.0	0.40	0.16
594-20-7	2,2-Dichloropropane	0.40	U	1.0	0.40	0.20
78-93-3	2-Butanone (MEK)	4.0	U	6.0	4.0	1.8
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40	0.17
591-78-6	2-Hexanone	4.0	U	5.0	4.0	1.4
106-43-4	4-Chlorotoluene	0.80	U	1.0	0.80	0.17
108-10-1	4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	1.0
67-64-1	Acetone	6.4	U	10	6.4	1.9
71-43-2	Benzene	0.40	U	1.0	0.40	0.16
108-86-1	Bromobenzene	0.40	U	1.0	0.40	0.17
74-97-5	Bromochloromethane	0.20	U	1.0	0.20	0.10
75-27-4	Bromodichloromethane	0.40	U	1.0	0.40	0.17
75-25-2	Bromoform	0.40	U	1.0	0.40	0.19
74-83-9	Bromomethane	0.80	U	2.0	0.80	0.21
75-15-0	Carbon disulfide	1.6	U	2.0	1.6	0.45
56-23-5	Carbon tetrachloride	0.62	J	2.0	0.40	0.19
108-90-7	Chlorobenzene	0.40	U	1.0	0.40	0.17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Client Sample ID: 54400-MW43-0615 Lab Sample ID: 280-70279-3
 Matrix: Water Lab File ID: Z8595.D
 Analysis Method: 8260B Date Collected: 06/04/2015 09:15
 Sample wt/vol: 20 (mL) Date Analyzed: 06/09/2015 21:42
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 281058 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
124-48-1	Chlorodibromomethane	0.40	U	1.0	0.40	0.17
75-00-3	Chloroethane	1.6	U	2.0	1.6	0.41
67-66-3	Chloroform	1.5		1.0	0.40	0.16
74-87-3	Chloromethane	0.80	U	2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-01-5	cis-1,3-Dichloropropene	0.40	U	1.0	0.40	0.16
74-95-3	Dibromomethane	0.40	U	1.0	0.40	0.17
75-71-8	Dichlorodifluoromethane	0.80	U	2.0	0.80	0.31
100-41-4	Ethylbenzene	0.40	U	1.0	0.40	0.16
87-68-3	Hexachlorobutadiene	0.80	U	1.0	0.80	0.36
98-82-8	Isopropylbenzene	0.40	U	1.0	0.40	0.19
1634-04-4	Methyl tert-butyl ether	0.80	U	5.0	0.80	0.25
75-09-2	Methylene Chloride	1.4	J	5.0	0.80	0.32
179601-23-1	m-Xylene & p-Xylene	0.80	U	2.0	0.80	0.34
91-20-3	Naphthalene	0.80	U	1.0	0.80	0.22
104-51-8	n-Butylbenzene	0.80	U	1.0	0.80	0.32
103-65-1	N-Propylbenzene	0.40	U	1.0	0.40	0.16
95-47-6	o-Xylene	0.40	U	1.0	0.40	0.19
99-87-6	p-Isopropyltoluene	0.40	U	1.0	0.40	0.17
135-98-8	sec-Butylbenzene	0.40	U	1.0	0.40	0.17
100-42-5	Styrene	0.40	U	1.0	0.40	0.17
75-65-0	tert-Butyl alcohol	32	U	50	32	11
98-06-6	tert-Butylbenzene	0.40	U	1.0	0.40	0.16
127-18-4	Tetrachloroethene	0.40	U	1.0	0.40	0.20
108-88-3	Toluene	0.40	U	1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-02-6	trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.19
79-01-6	Trichloroethene	0.23	J	1.0	0.40	0.16
75-69-4	Trichlorofluoromethane	0.80	U	2.0	0.80	0.29
75-01-4	Vinyl chloride	0.20	U	1.5	0.20	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Client Sample ID: 54400-MW43-0615 Lab Sample ID: 280-70279-3
 Matrix: Water Lab File ID: Z8595.D
 Analysis Method: 8260B Date Collected: 06/04/2015 09:15
 Sample wt/vol: 20 (mL) Date Analyzed: 06/09/2015 21:42
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 281058 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		81-118
460-00-4	4-Bromofluorobenzene (Surr)	107		85-114
1868-53-7	Dibromofluoromethane (Surr)	108		80-119
2037-26-5	Toluene-d8 (Surr)	104		89-112

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8595.D
 Lims ID: 280-70279-A-3 Lab Sample ID: 280-70279-3
 Client ID: 54400-MW43-0615
 Sample Type: Client
 Inject. Date: 09-Jun-2015 21:42:30 ALS Bottle#: 11 Worklist Smp#: 13
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: 280-70279-A-3 pH<2
 Operator ID: bergerb Instrument ID: VMS_Z
 Method: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\AQ_VMSZ_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 10-Jun-2015 15:45:19 Calib Date: 02-Jun-2015 01:06:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8233.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK012

First Level Reviewer: bergerb

Date: 10-Jun-2015 15:46:07

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.467	3.479	-0.012	87	128101	250.0	
* 2 Fluorobenzene	96	6.373	6.384	-0.011	98	769180	12.5	
* 3 1,4-Dioxane-d8	96		7.292				ND	
* 4 Chlorobenzene-d5	119	11.019	11.013	0.006	83	201230	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.125	15.120	0.005	96	311402	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.468	5.462	0.006	94	416803	11.3	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	5.903	5.897	0.006	93	146260	10.5	
\$ 10 Toluene-d8 (Surr)	98	8.704	8.699	0.005	92	714066	10.9	
\$ 11 4-Bromofluorobenzene (Surr	95	13.055	13.049	0.006	91	395317	11.2	
27 Dichlorodifluoromethane	85		1.913				ND	
30 Chloromethane	50		1.982				ND	
32 Vinyl chloride	62		2.104				ND	
35 Bromomethane	94		2.330				ND	
36 Chloroethane	64		2.382				ND	
38 Trichlorofluoromethane	101		2.591				ND	
45 1,1-Dichloroethene	96		3.026				ND	
48 Acetone	43		3.026				ND	
50 Carbon disulfide	76		3.270				ND	
54 Methylene Chloride	84	3.449	3.461	-0.012	80	25868	1.40	
55 2-Methyl-2-propanol	59		3.566				ND	
57 trans-1,2-Dichloroethene	96		3.757				ND	
56 Methyl tert-butyl ether	73		3.774				ND	
62 1,1-Dichloroethane	63		4.192				ND	
67 2-Butanone (MEK)	43		4.853				ND	
65 cis-1,2-Dichloroethene	96		4.871				ND	
66 2,2-Dichloropropane	77		4.888				ND	
71 Chlorobromomethane	128		5.166				ND	
74 Chloroform	83	5.242	5.253	-0.011	93	60436	1.52	
75 1,1,1-Trichloroethane	97		5.549				ND	
78 1,1-Dichloropropene	75		5.741				ND	
77 Carbon tetrachloride	117	5.781	5.775	0.006	94	24932	0.6160	
82 1,2-Dichloroethane	62		6.002				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Benzene	78		6.002				ND	
85 Trichloroethene	95	6.912	6.907	0.006	92	6304	0.2301	
90 1,2-Dichloropropane	63	7.191	7.202	-0.011	84	4955	0.2058	
92 Dibromomethane	93		7.376				ND	
94 Dichlorobromomethane	83		7.603				ND	
97 cis-1,3-Dichloropropene	75		8.264				ND	
98 4-Methyl-2-pentanone (MIBK)	43		8.525				ND	
99 Toluene	91		8.803				ND	
100 trans-1,3-Dichloropropene	75		9.116				ND	
102 1,1,2-Trichloroethane	97		9.412				ND	
104 1,3-Dichloropropane	76		9.673				ND	
103 Tetrachloroethene	164		9.708				ND	
105 2-Hexanone	43		9.865				ND	
107 Chlorodibromomethane	129		10.056				ND	
109 Ethylene Dibromide	107		10.230				ND	
111 Chlorobenzene	112		11.065				ND	
113 1,1,1,2-Tetrachloroethane	131		11.222				ND	
112 Ethylbenzene	106		11.274				ND	
114 m-Xylene & p-Xylene	106		11.483				ND	
115 o-Xylene	106		12.162				ND	
116 Styrene	104		12.179				ND	
117 Bromoform	173		12.457				ND	
118 Isopropylbenzene	105		12.823				ND	
121 Bromobenzene	156		13.293				ND	
122 1,1,2,2-Tetrachloroethane	83		13.310				ND	
124 1,2,3-Trichloropropane	110		13.362				ND	
123 N-Propylbenzene	120		13.536				ND	
126 2-Chlorotoluene	126		13.658				ND	
128 4-Chlorotoluene	126		13.849				ND	
127 1,3,5-Trimethylbenzene	105		13.867				ND	
129 tert-Butylbenzene	119		14.441				ND	
130 1,2,4-Trimethylbenzene	105		14.528				ND	
131 sec-Butylbenzene	134		14.841				ND	
132 1,3-Dichlorobenzene	146		14.998				ND	
133 4-Isopropyltoluene	119		15.120				ND	
134 1,4-Dichlorobenzene	146		15.154				ND	
138 1,2-Dichlorobenzene	146		15.798				ND	
137 n-Butylbenzene	91		15.850				ND	
139 1,2-Dibromo-3-Chloropropan	157		16.929				ND	
141 1,2,4-Trichlorobenzene	180		17.869				ND	
142 Hexachlorobutadiene	225		18.060				ND	
143 Naphthalene	128		18.095				ND	
144 1,2,3-Trichlorobenzene	180		18.339				ND	

Reagents:

MV-567649-D_00001

Amount Added: 1.00

Units: uL

Run Reagent

MV-ARCH SS A_00047

Amount Added: 0.84

Units: uL

Run Reagent

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8595.D

Injection Date: 09-Jun-2015 21:42:30

Instrument ID: VMS_Z

Operator ID: bergerb

Lims ID: 280-70279-A-3

Lab Sample ID: 280-70279-3

Worklist Smp#: 13

Client ID: 54400-MW43-0615

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

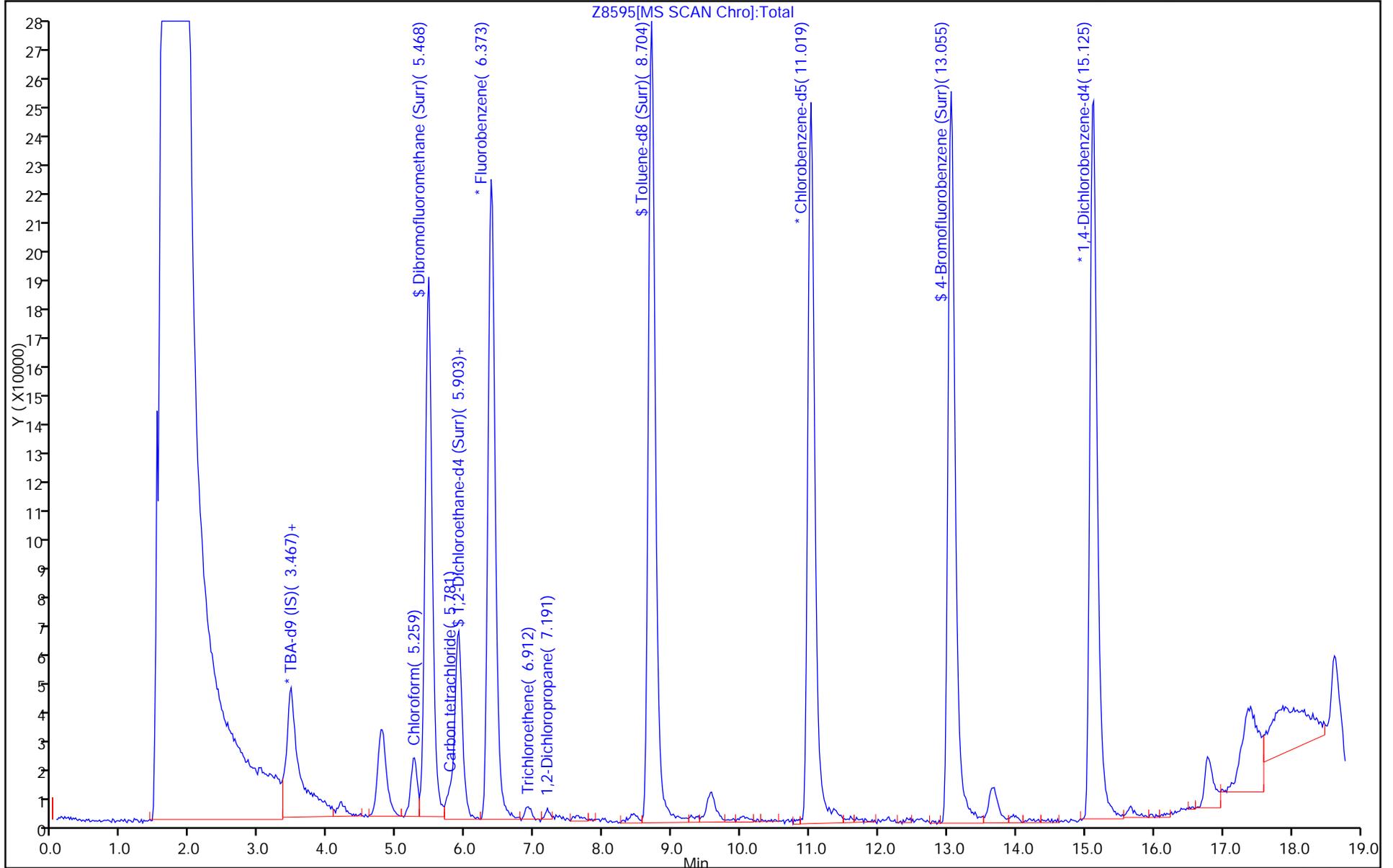
ALS Bottle#: 11

Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8595.D

Injection Date: 09-Jun-2015 21:42:30

Instrument ID: VMS_Z

Lims ID: 280-70279-A-3

Lab Sample ID: 280-70279-3

Client ID: 54400-MW43-0615

Operator ID: bergerb

ALS Bottle#: 11

Worklist Smp#: 13

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

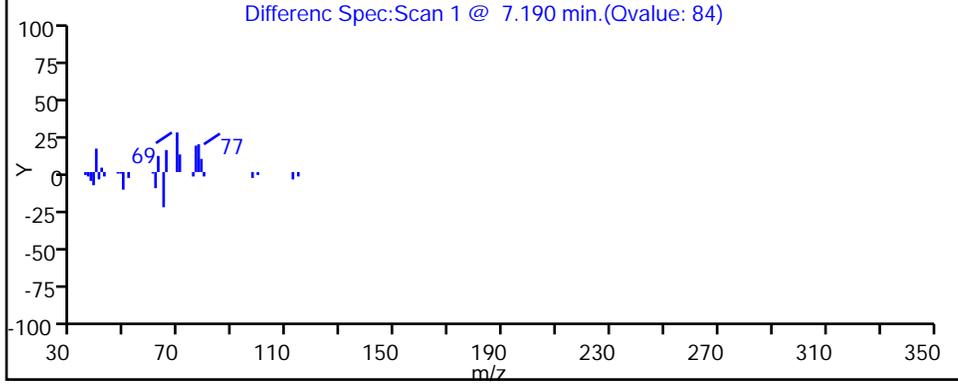
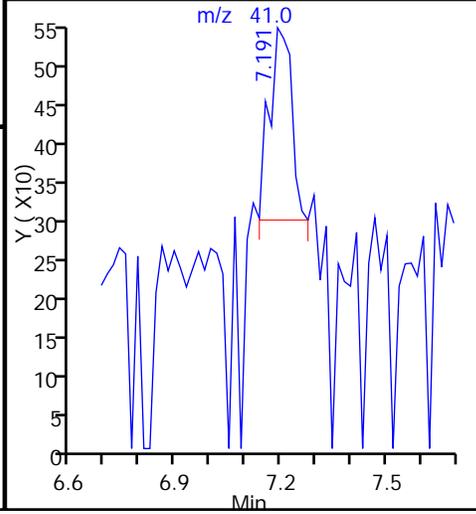
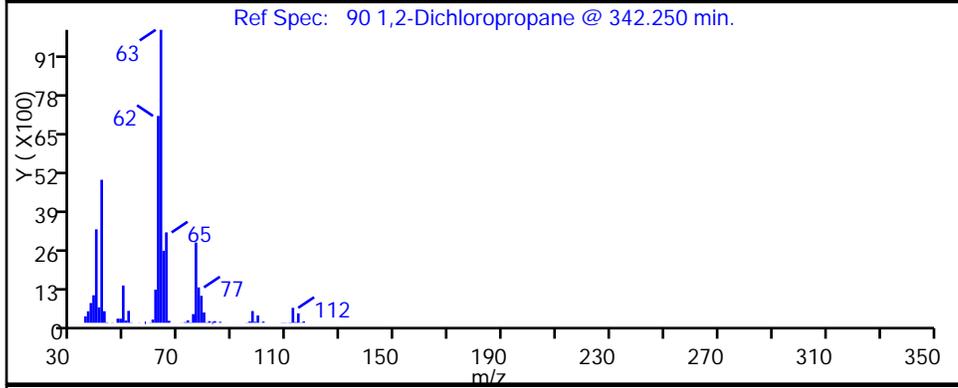
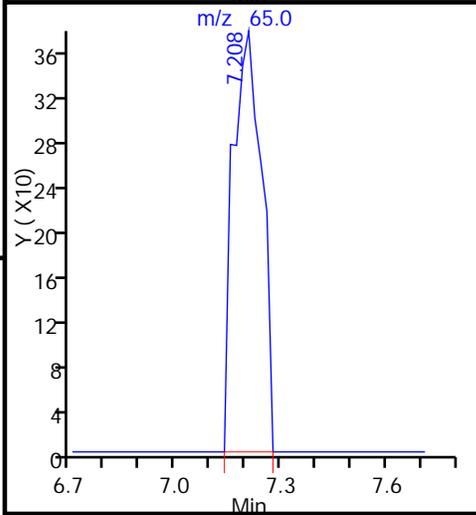
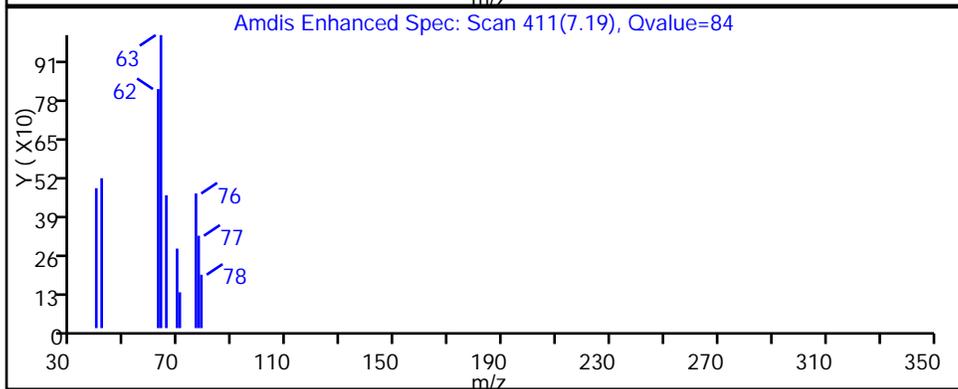
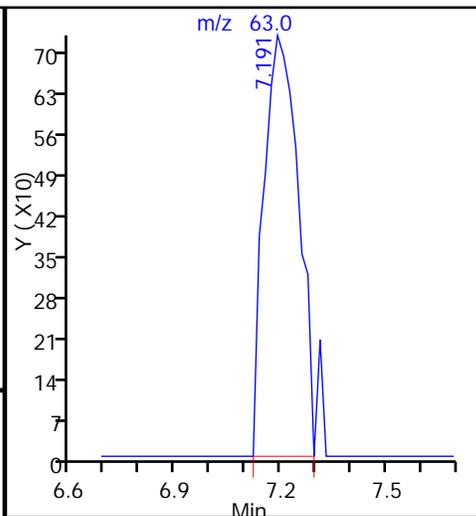
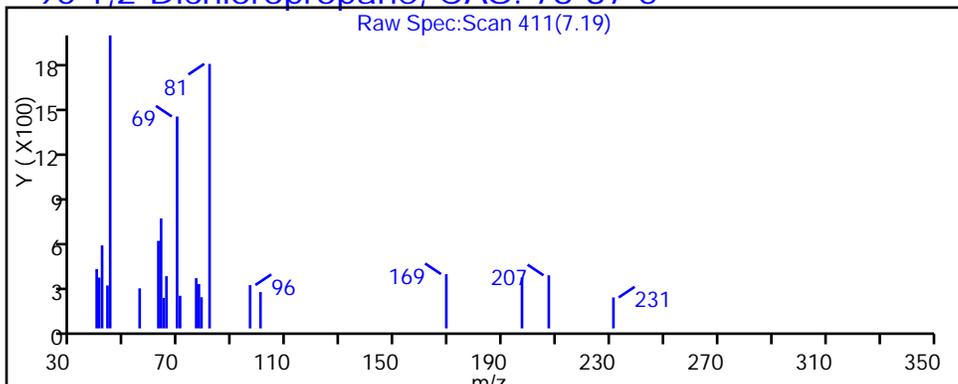
Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Detector: MS SCAN

90 1,2-Dichloropropane, CAS: 78-87-5



TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8595.D

Injection Date: 09-Jun-2015 21:42:30

Instrument ID: VMS_Z

Lims ID: 280-70279-A-3

Lab Sample ID: 280-70279-3

Client ID: 54400-MW43-0615

Operator ID: bergerb

ALS Bottle#: 11

Worklist Smp#: 13

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

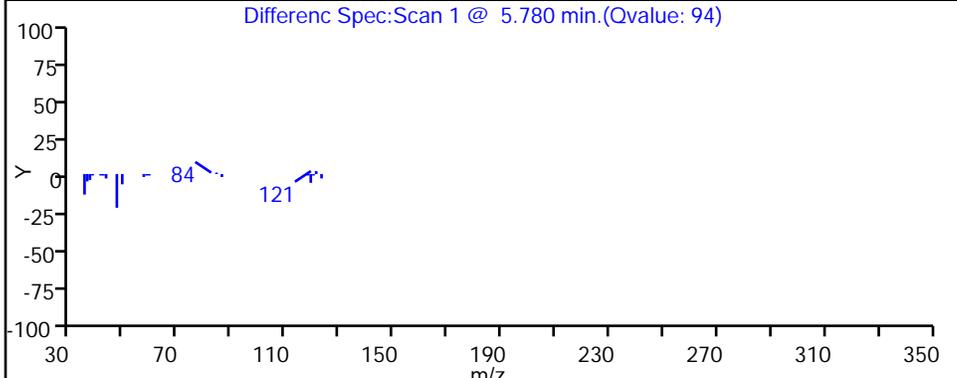
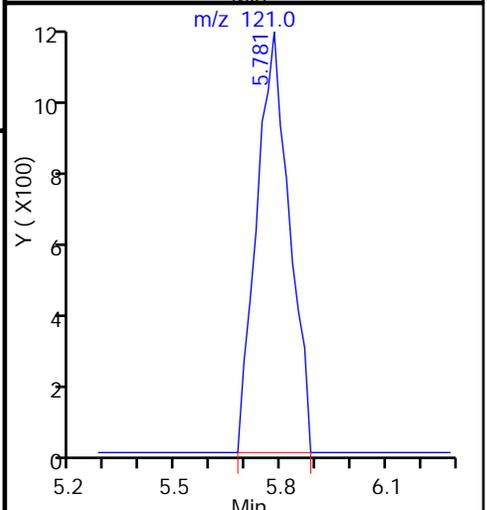
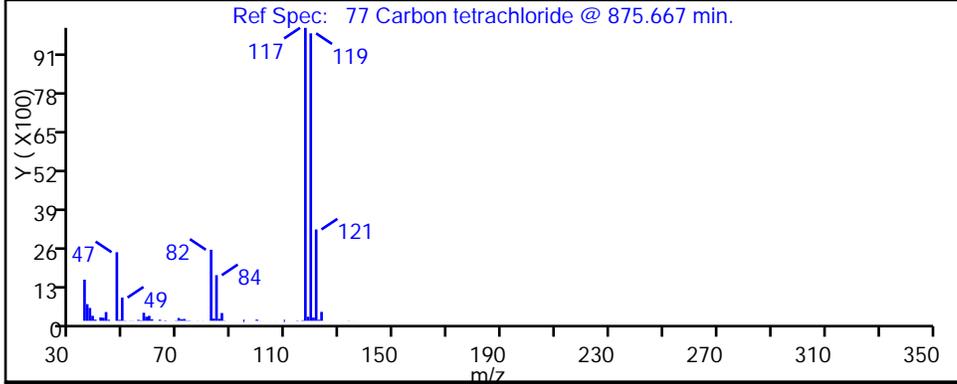
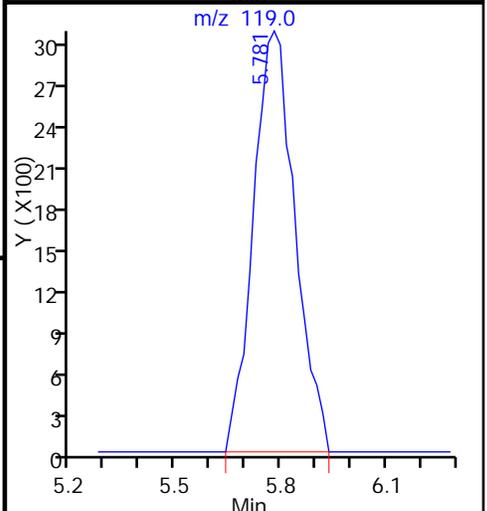
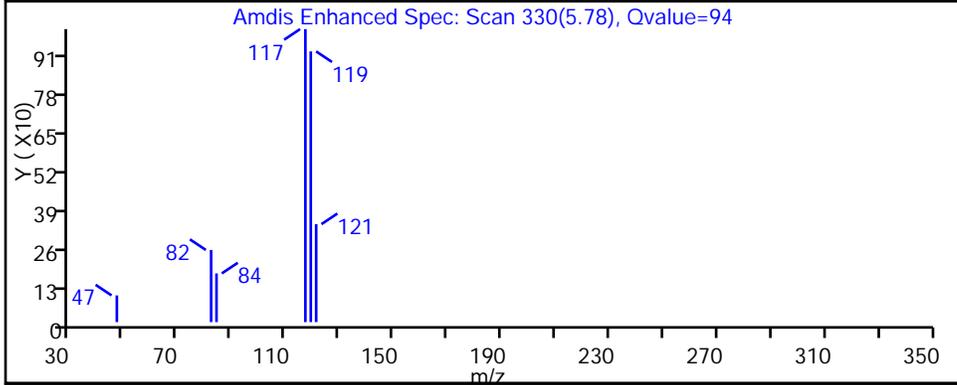
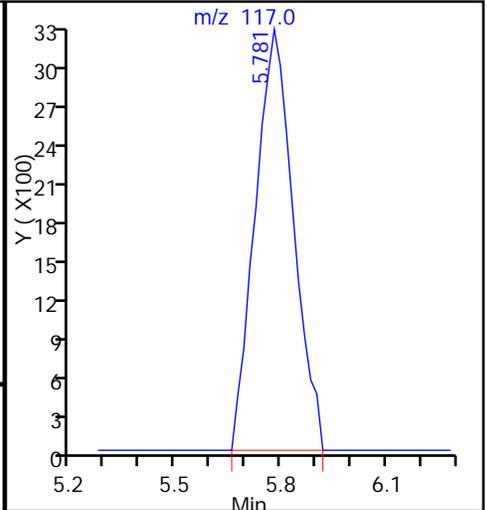
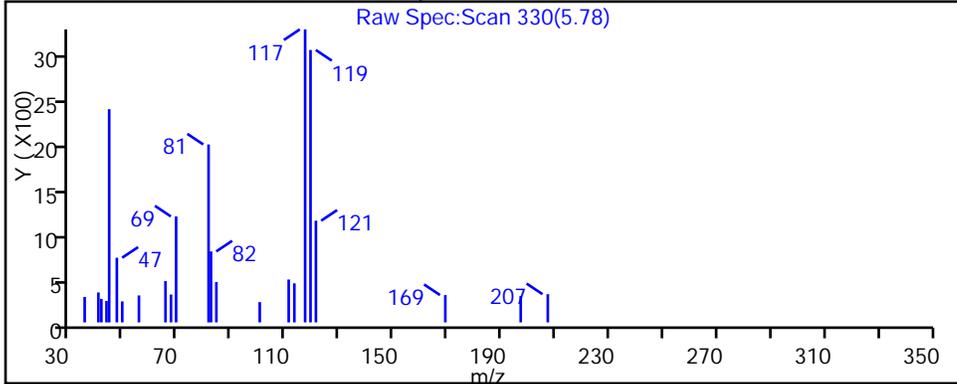
Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Detector: MS SCAN

77 Carbon tetrachloride, CAS: 56-23-5



TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8595.D

Injection Date: 09-Jun-2015 21:42:30

Instrument ID: VMS_Z

Lims ID: 280-70279-A-3

Lab Sample ID: 280-70279-3

Client ID: 54400-MW43-0615

Operator ID: bergerb

ALS Bottle#: 11

Worklist Smp#: 13

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

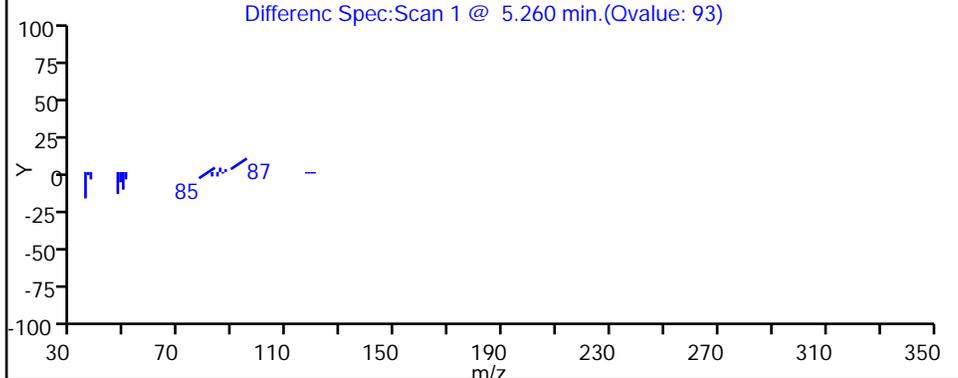
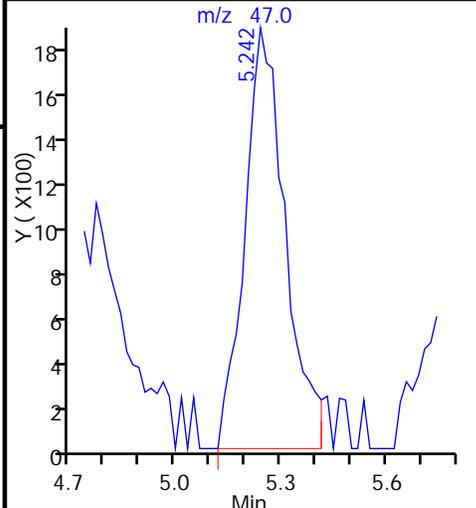
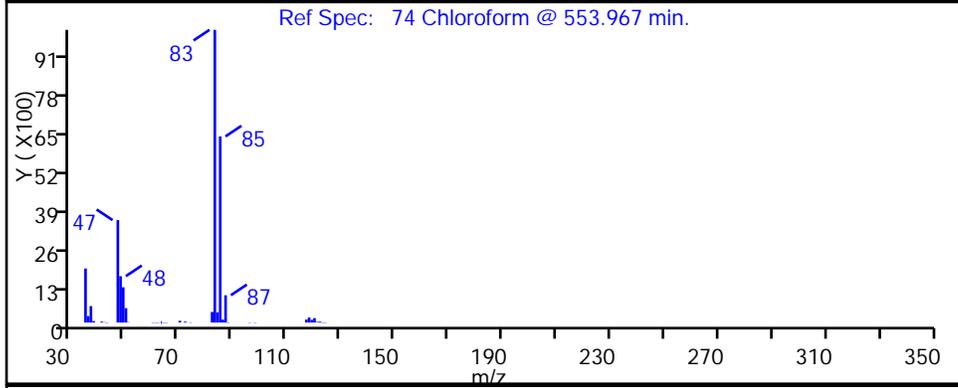
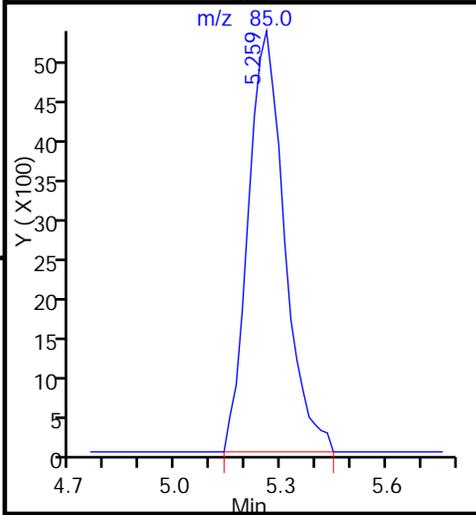
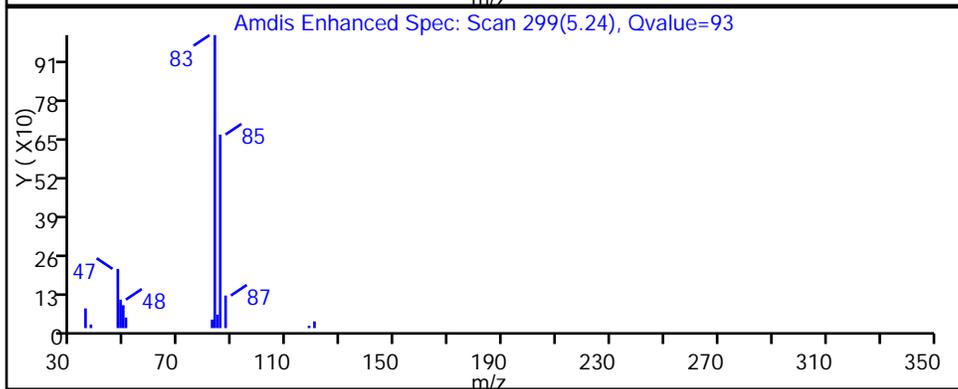
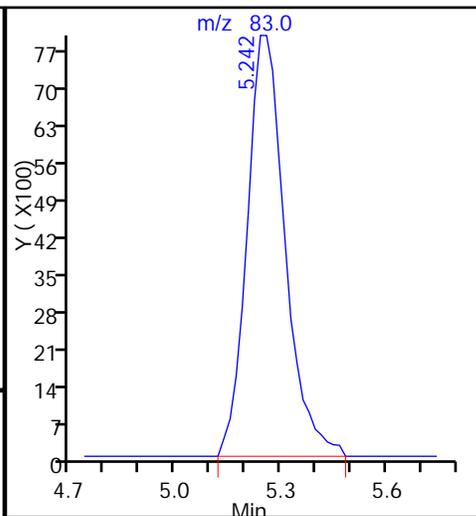
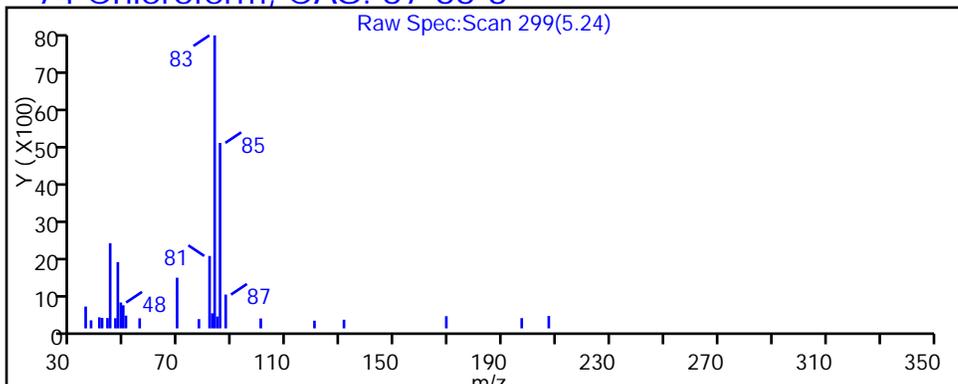
Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Detector: MS SCAN

74 Chloroform, CAS: 67-66-3



TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8595.D

Injection Date: 09-Jun-2015 21:42:30

Instrument ID: VMS_Z

Lims ID: 280-70279-A-3

Lab Sample ID: 280-70279-3

Client ID: 54400-MW43-0615

Operator ID: bergerb

ALS Bottle#: 11

Worklist Smp#: 13

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

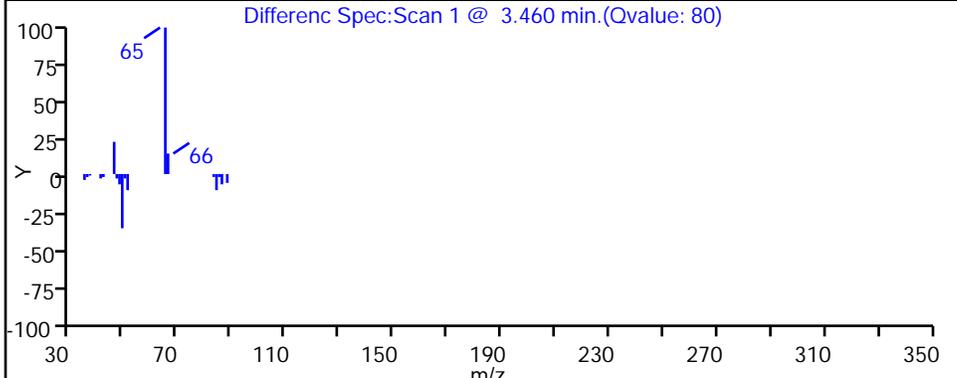
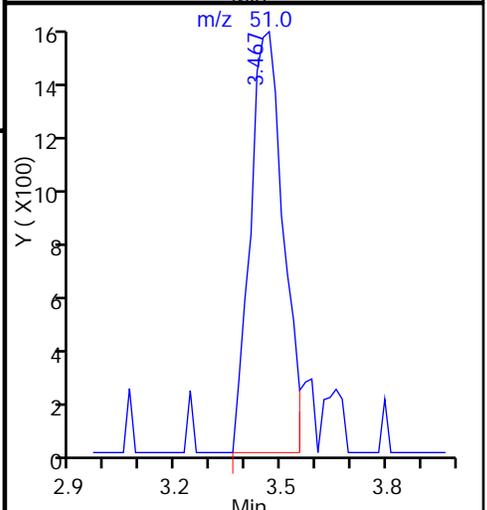
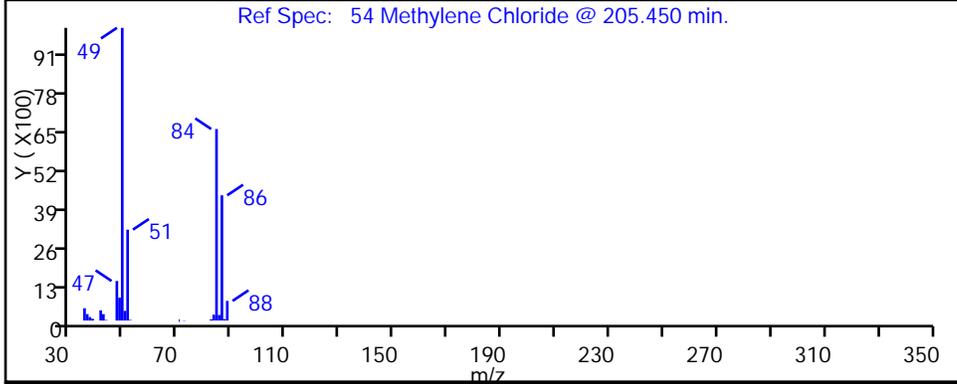
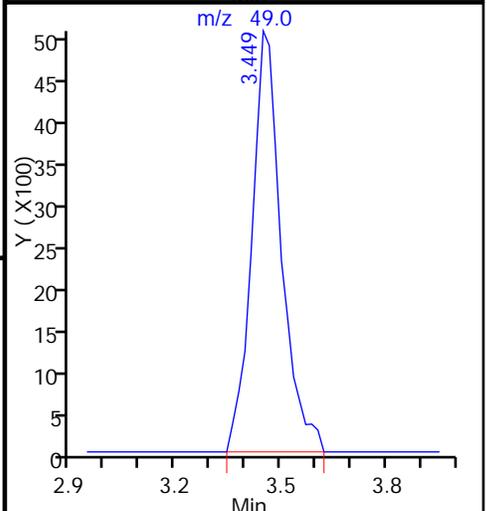
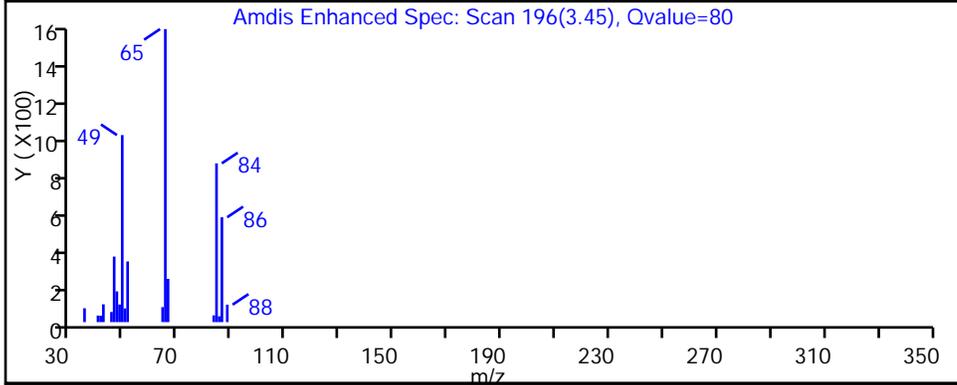
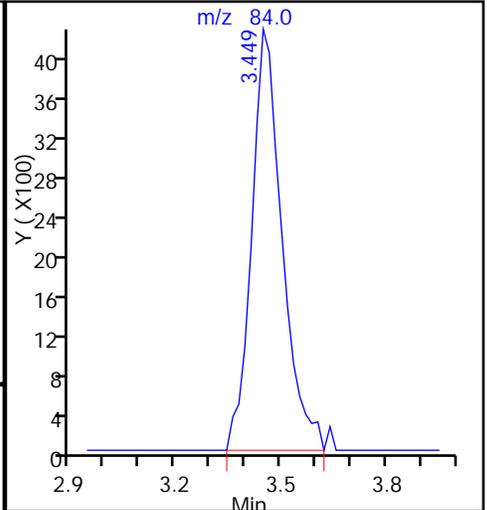
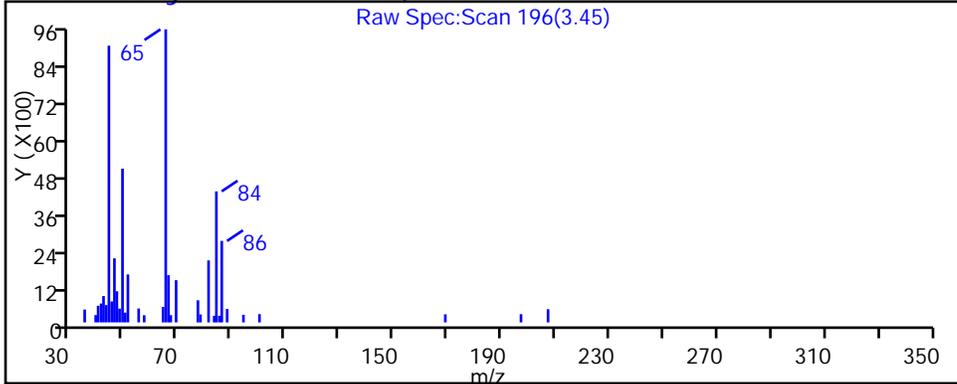
Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Detector: MS SCAN

54 Methylene Chloride, CAS: 75-09-2



TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8595.D

Injection Date: 09-Jun-2015 21:42:30

Instrument ID: VMS_Z

Lims ID: 280-70279-A-3

Lab Sample ID: 280-70279-3

Client ID: 54400-MW43-0615

Operator ID: bergerb

ALS Bottle#: 11

Worklist Smp#: 13

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

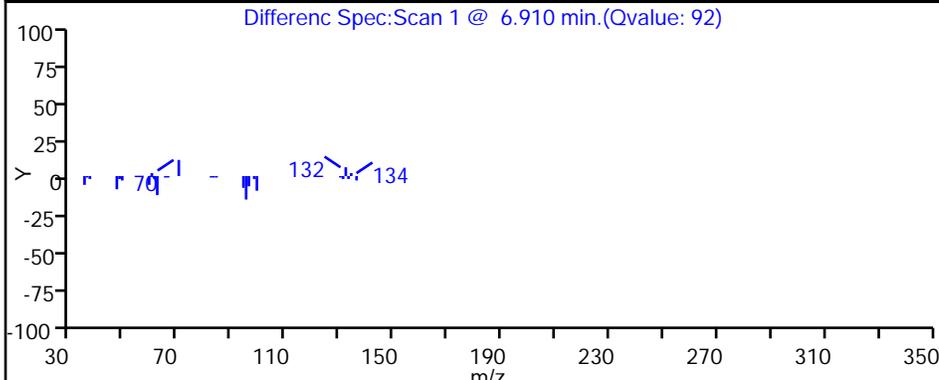
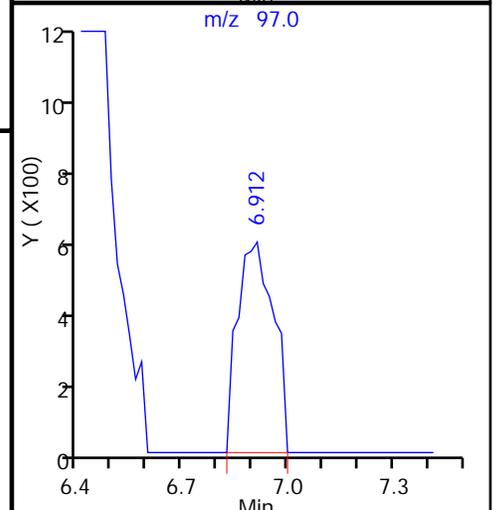
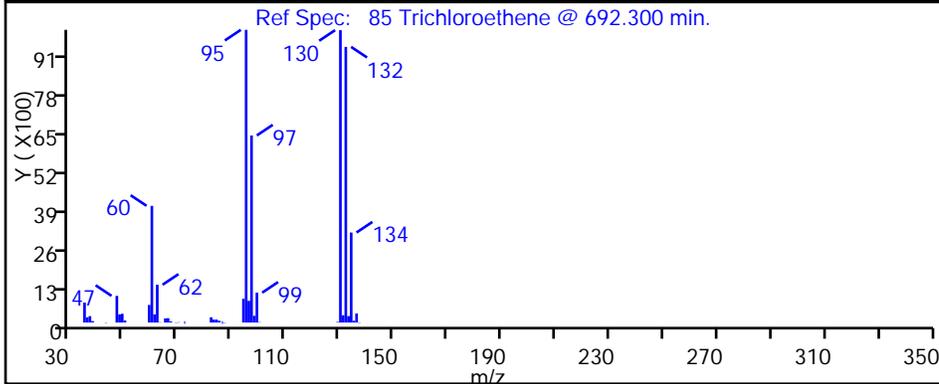
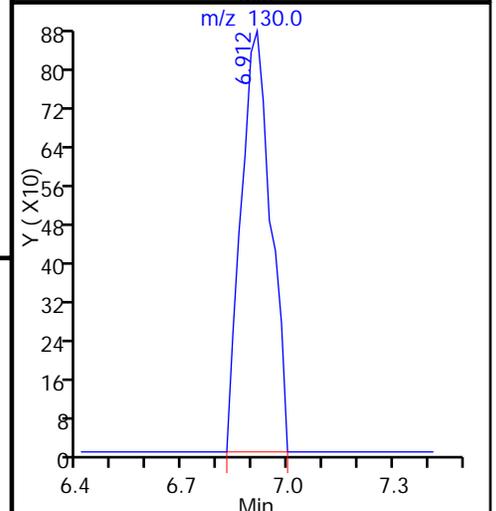
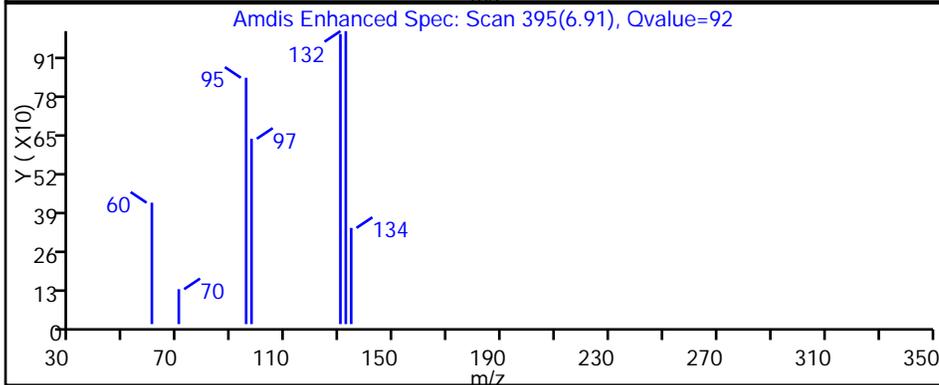
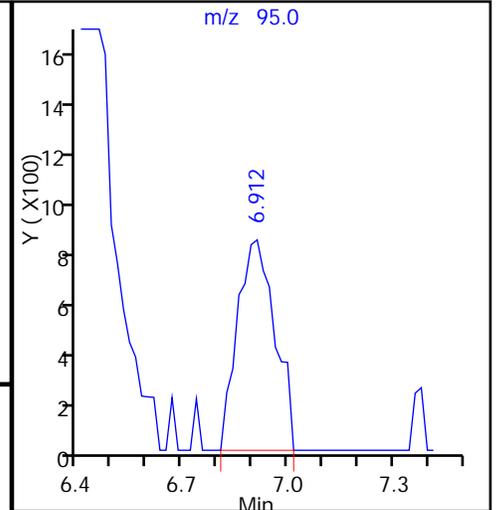
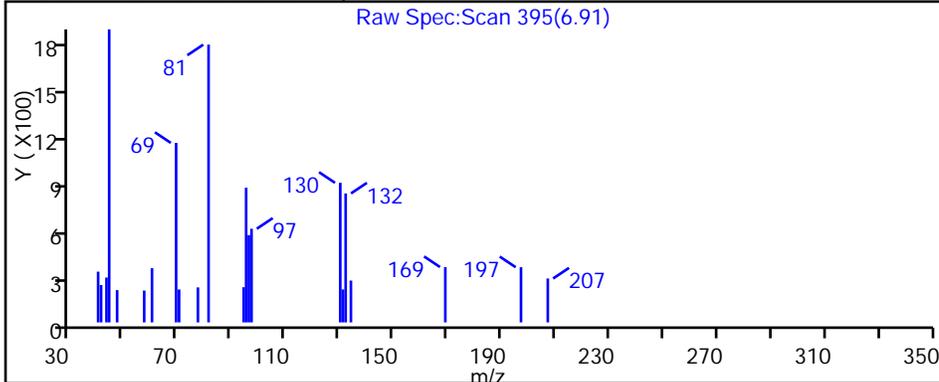
Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Detector: MS SCAN

85 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Client Sample ID: 54400-MW56-0615 Lab Sample ID: 280-70279-4
 Matrix: Water Lab File ID: Z8596.D
 Analysis Method: 8260B Date Collected: 06/04/2015 11:55
 Sample wt/vol: 20 (mL) Date Analyzed: 06/09/2015 22:05
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 281058 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	0.80	U	1.0	0.80	0.17
71-55-6	1,1,1-Trichloroethane	0.40	U	1.0	0.40	0.16
79-34-5	1,1,2,2-Tetrachloroethane	0.80	U	1.0	0.80	0.20
79-00-5	1,1,2-Trichloroethane	0.80	U	1.0	0.80	0.32
75-34-3	1,1-Dichloroethane	0.80	U	1.0	0.80	0.16
75-35-4	1,1-Dichloroethene	0.80	U	1.0	0.80	0.14
563-58-6	1,1-Dichloropropene	0.40	U	1.0	0.40	0.15
87-61-6	1,2,3-Trichlorobenzene	0.80	U	1.0	0.80	0.18
96-18-4	1,2,3-Trichloropropane	0.80	U	3.0	0.80	0.77
120-82-1	1,2,4-Trichlorobenzene	0.80	U	1.0	0.80	0.32
95-63-6	1,2,4-Trimethylbenzene	0.40	U	1.0	0.40	0.14
96-12-8	1,2-Dibromo-3-Chloropropane	1.6	U	5.0	1.6	0.81
106-93-4	1,2-Dibromoethane	0.40	U	1.0	0.40	0.18
95-50-1	1,2-Dichlorobenzene	0.40	U	1.0	0.40	0.13
107-06-2	1,2-Dichloroethane	0.40	U	1.0	0.40	0.13
78-87-5	1,2-Dichloropropane	0.40	U	1.0	0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	0.40	U	1.0	0.40	0.14
541-73-1	1,3-Dichlorobenzene	0.40	U	1.0	0.40	0.16
142-28-9	1,3-Dichloropropane	0.80	U	1.0	0.80	0.15
106-46-7	1,4-Dichlorobenzene	0.40	U	1.0	0.40	0.16
594-20-7	2,2-Dichloropropane	0.40	U	1.0	0.40	0.20
78-93-3	2-Butanone (MEK)	4.0	U	6.0	4.0	1.8
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40	0.17
591-78-6	2-Hexanone	4.0	U	5.0	4.0	1.4
106-43-4	4-Chlorotoluene	0.80	U	1.0	0.80	0.17
108-10-1	4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	1.0
67-64-1	Acetone	6.4	U	10	6.4	1.9
71-43-2	Benzene	0.40	U	1.0	0.40	0.16
108-86-1	Bromobenzene	0.40	U	1.0	0.40	0.17
74-97-5	Bromochloromethane	0.20	U	1.0	0.20	0.10
75-27-4	Bromodichloromethane	0.40	U	1.0	0.40	0.17
75-25-2	Bromoform	0.40	U	1.0	0.40	0.19
74-83-9	Bromomethane	0.80	U	2.0	0.80	0.21
75-15-0	Carbon disulfide	1.6	U	2.0	1.6	0.45
56-23-5	Carbon tetrachloride	0.40	U	2.0	0.40	0.19
108-90-7	Chlorobenzene	0.40	U	1.0	0.40	0.17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Client Sample ID: 54400-MW56-0615 Lab Sample ID: 280-70279-4
 Matrix: Water Lab File ID: Z8596.D
 Analysis Method: 8260B Date Collected: 06/04/2015 11:55
 Sample wt/vol: 20 (mL) Date Analyzed: 06/09/2015 22:05
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 281058 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
124-48-1	Chlorodibromomethane	0.40	U	1.0	0.40	0.17
75-00-3	Chloroethane	1.6	U	2.0	1.6	0.41
67-66-3	Chloroform	0.40	U	1.0	0.40	0.16
74-87-3	Chloromethane	0.80	U	2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-01-5	cis-1,3-Dichloropropene	0.40	U	1.0	0.40	0.16
74-95-3	Dibromomethane	0.40	U	1.0	0.40	0.17
75-71-8	Dichlorodifluoromethane	0.80	U	2.0	0.80	0.31
100-41-4	Ethylbenzene	0.40	U	1.0	0.40	0.16
87-68-3	Hexachlorobutadiene	0.80	U	1.0	0.80	0.36
98-82-8	Isopropylbenzene	0.40	U	1.0	0.40	0.19
1634-04-4	Methyl tert-butyl ether	0.80	U	5.0	0.80	0.25
75-09-2	Methylene Chloride	0.80	U	5.0	0.80	0.32
179601-23-1	m-Xylene & p-Xylene	0.80	U	2.0	0.80	0.34
91-20-3	Naphthalene	0.80	U	1.0	0.80	0.22
104-51-8	n-Butylbenzene	0.80	U	1.0	0.80	0.32
103-65-1	N-Propylbenzene	0.40	U	1.0	0.40	0.16
95-47-6	o-Xylene	0.40	U	1.0	0.40	0.19
99-87-6	p-Isopropyltoluene	0.40	U	1.0	0.40	0.17
135-98-8	sec-Butylbenzene	0.40	U	1.0	0.40	0.17
100-42-5	Styrene	0.40	U	1.0	0.40	0.17
75-65-0	tert-Butyl alcohol	32	U	50	32	11
98-06-6	tert-Butylbenzene	0.40	U	1.0	0.40	0.16
127-18-4	Tetrachloroethene	0.40	U	1.0	0.40	0.20
108-88-3	Toluene	0.40	U	1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-02-6	trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.19
79-01-6	Trichloroethene	0.40	U	1.0	0.40	0.16
75-69-4	Trichlorofluoromethane	0.80	U	2.0	0.80	0.29
75-01-4	Vinyl chloride	0.20	U	1.5	0.20	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Client Sample ID: 54400-MW56-0615 Lab Sample ID: 280-70279-4
 Matrix: Water Lab File ID: Z8596.D
 Analysis Method: 8260B Date Collected: 06/04/2015 11:55
 Sample wt/vol: 20 (mL) Date Analyzed: 06/09/2015 22:05
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 281058 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		81-118
460-00-4	4-Bromofluorobenzene (Surr)	105		85-114
1868-53-7	Dibromofluoromethane (Surr)	109		80-119
2037-26-5	Toluene-d8 (Surr)	102		89-112

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8596.D
 Lims ID: 280-70279-A-4 Lab Sample ID: 280-70279-4
 Client ID: 54400-MW56-0615
 Sample Type: Client
 Inject. Date: 09-Jun-2015 22:05:30 ALS Bottle#: 12 Worklist Smp#: 14
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: 280-70279-A-4 pH<2
 Operator ID: bergerb Instrument ID: VMS_Z
 Method: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\AQ_VMSZ_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 10-Jun-2015 15:45:19 Calib Date: 02-Jun-2015 01:06:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8233.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK012

First Level Reviewer: bergerb

Date: 10-Jun-2015 15:45:55

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.462	3.479	-0.017	88	151903	250.0	
* 2 Fluorobenzene	96	6.385	6.384	0.001	98	814170	12.5	
* 3 1,4-Dioxane-d8	96		7.292				ND	
* 4 Chlorobenzene-d5	119	11.014	11.013	0.001	83	220395	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.120	15.120	0.000	96	332791	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.463	5.462	0.001	94	443991	11.4	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	5.898	5.897	0.001	93	153204	10.4	
\$ 10 Toluene-d8 (Surr)	98	8.699	8.699	0.000	92	764843	10.7	
\$ 11 4-Bromofluorobenzene (Surr	95	13.050	13.049	0.001	91	415824	11.0	
27 Dichlorodifluoromethane	85		1.913				ND	
30 Chloromethane	50		1.982				ND	
32 Vinyl chloride	62		2.104				ND	
35 Bromomethane	94		2.330				ND	
36 Chloroethane	64		2.382				ND	
38 Trichlorofluoromethane	101		2.591				ND	
45 1,1-Dichloroethene	96		3.026				ND	
48 Acetone	43		3.026				ND	
50 Carbon disulfide	76		3.270				ND	
54 Methylene Chloride	84	3.462	3.461	0.001	76	4808	0.2451	
55 2-Methyl-2-propanol	59		3.566				ND	
57 trans-1,2-Dichloroethene	96		3.757				ND	
56 Methyl tert-butyl ether	73		3.774				ND	
62 1,1-Dichloroethane	63		4.192				ND	
67 2-Butanone (MEK)	43		4.853				ND	
65 cis-1,2-Dichloroethene	96		4.871				ND	
66 2,2-Dichloropropane	77		4.888				ND	
71 Chlorobromomethane	128		5.166				ND	
74 Chloroform	83		5.253				ND	
75 1,1,1-Trichloroethane	97		5.549				ND	
78 1,1-Dichloropropene	75		5.741				ND	
77 Carbon tetrachloride	117		5.775				ND	
82 1,2-Dichloroethane	62		6.002				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Benzene	78		6.002				ND	
85 Trichloroethene	95		6.907				ND	
90 1,2-Dichloropropane	63		7.202				ND	
92 Dibromomethane	93		7.376				ND	
94 Dichlorobromomethane	83		7.603				ND	
97 cis-1,3-Dichloropropene	75		8.264				ND	
98 4-Methyl-2-pentanone (MIBK)	43		8.525				ND	
99 Toluene	91		8.803				ND	
100 trans-1,3-Dichloropropene	75		9.116				ND	
102 1,1,2-Trichloroethane	97		9.412				ND	
104 1,3-Dichloropropane	76		9.673				ND	
103 Tetrachloroethene	164		9.708				ND	
105 2-Hexanone	43		9.865				ND	
107 Chlorodibromomethane	129		10.056				ND	
109 Ethylene Dibromide	107		10.230				ND	
111 Chlorobenzene	112		11.065				ND	
113 1,1,1,2-Tetrachloroethane	131		11.222				ND	
112 Ethylbenzene	106		11.274				ND	
114 m-Xylene & p-Xylene	106		11.483				ND	
115 o-Xylene	106		12.162				ND	
116 Styrene	104		12.179				ND	
117 Bromoform	173		12.457				ND	
118 Isopropylbenzene	105		12.823				ND	
121 Bromobenzene	156		13.293				ND	
122 1,1,2,2-Tetrachloroethane	83		13.310				ND	
124 1,2,3-Trichloropropane	110		13.362				ND	
123 N-Propylbenzene	120		13.536				ND	
126 2-Chlorotoluene	126		13.658				ND	
128 4-Chlorotoluene	126		13.849				ND	
127 1,3,5-Trimethylbenzene	105		13.867				ND	
129 tert-Butylbenzene	119		14.441				ND	
130 1,2,4-Trimethylbenzene	105		14.528				ND	
131 sec-Butylbenzene	134		14.841				ND	
132 1,3-Dichlorobenzene	146		14.998				ND	
133 4-Isopropyltoluene	119		15.120				ND	
134 1,4-Dichlorobenzene	146		15.154				ND	
138 1,2-Dichlorobenzene	146		15.798				ND	
137 n-Butylbenzene	91		15.850				ND	
139 1,2-Dibromo-3-Chloropropan	157		16.929				ND	
141 1,2,4-Trichlorobenzene	180		17.869				ND	
142 Hexachlorobutadiene	225		18.060				ND	
143 Naphthalene	128		18.095				ND	
144 1,2,3-Trichlorobenzene	180		18.339				ND	

Reagents:

MV-567649-D_00001

Amount Added: 1.00

Units: uL

Run Reagent

MV-ARCH SS A_00047

Amount Added: 0.84

Units: uL

Run Reagent

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8596.D

Injection Date: 09-Jun-2015 22:05:30

Instrument ID: VMS_Z

Operator ID: bergerb

Lims ID: 280-70279-A-4

Lab Sample ID: 280-70279-4

Worklist Smp#: 14

Client ID: 54400-MW56-0615

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

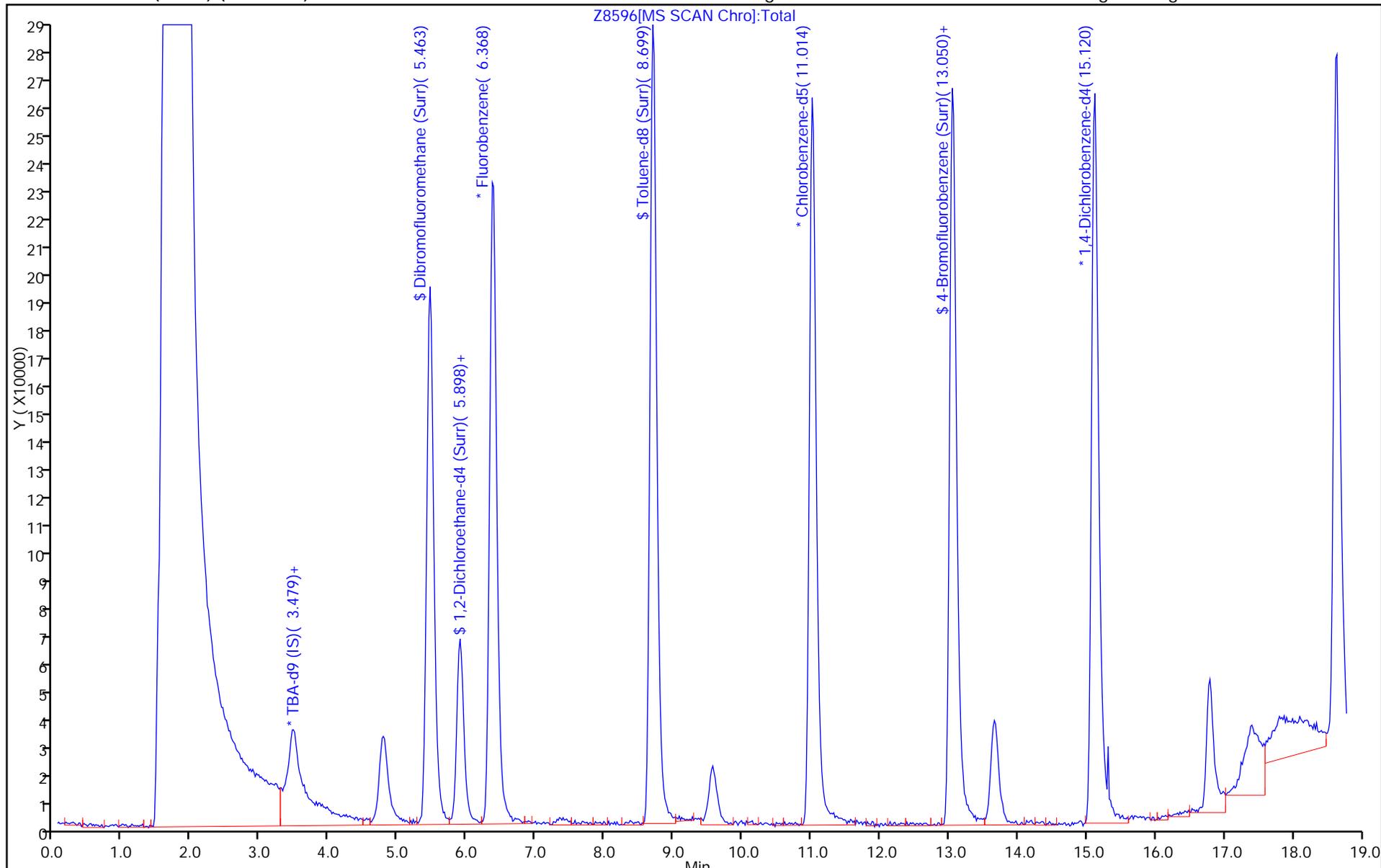
ALS Bottle#: 12

Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Client Sample ID: 54400-MW55S-0615 Lab Sample ID: 280-70279-5
 Matrix: Water Lab File ID: Z8597.D
 Analysis Method: 8260B Date Collected: 06/04/2015 14:05
 Sample wt/vol: 20 (mL) Date Analyzed: 06/09/2015 22:27
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 281058 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	0.80	U	1.0	0.80	0.17
71-55-6	1,1,1-Trichloroethane	0.40	U	1.0	0.40	0.16
79-34-5	1,1,2,2-Tetrachloroethane	0.80	U	1.0	0.80	0.20
79-00-5	1,1,2-Trichloroethane	0.80	U	1.0	0.80	0.32
75-34-3	1,1-Dichloroethane	0.80	U	1.0	0.80	0.16
75-35-4	1,1-Dichloroethene	7.4		1.0	0.80	0.14
563-58-6	1,1-Dichloropropene	0.40	U	1.0	0.40	0.15
87-61-6	1,2,3-Trichlorobenzene	0.80	U	1.0	0.80	0.18
96-18-4	1,2,3-Trichloropropane	0.80	U	3.0	0.80	0.77
120-82-1	1,2,4-Trichlorobenzene	0.80	U	1.0	0.80	0.32
95-63-6	1,2,4-Trimethylbenzene	0.40	U	1.0	0.40	0.14
96-12-8	1,2-Dibromo-3-Chloropropane	1.6	U	5.0	1.6	0.81
106-93-4	1,2-Dibromoethane	0.40	U	1.0	0.40	0.18
95-50-1	1,2-Dichlorobenzene	0.40	U	1.0	0.40	0.13
107-06-2	1,2-Dichloroethane	0.40	U	1.0	0.40	0.13
78-87-5	1,2-Dichloropropane	0.40	U	1.0	0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	0.40	U	1.0	0.40	0.14
541-73-1	1,3-Dichlorobenzene	0.40	U	1.0	0.40	0.16
142-28-9	1,3-Dichloropropane	0.80	U	1.0	0.80	0.15
106-46-7	1,4-Dichlorobenzene	0.40	U	1.0	0.40	0.16
594-20-7	2,2-Dichloropropane	0.40	U	1.0	0.40	0.20
78-93-3	2-Butanone (MEK)	4.0	U	6.0	4.0	1.8
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40	0.17
591-78-6	2-Hexanone	4.0	U	5.0	4.0	1.4
106-43-4	4-Chlorotoluene	0.80	U	1.0	0.80	0.17
108-10-1	4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	1.0
67-64-1	Acetone	6.4	U	10	6.4	1.9
71-43-2	Benzene	0.40	U	1.0	0.40	0.16
108-86-1	Bromobenzene	0.40	U	1.0	0.40	0.17
74-97-5	Bromochloromethane	0.20	U	1.0	0.20	0.10
75-27-4	Bromodichloromethane	0.40	U	1.0	0.40	0.17
75-25-2	Bromoform	0.40	U	1.0	0.40	0.19
74-83-9	Bromomethane	0.80	U	2.0	0.80	0.21
75-15-0	Carbon disulfide	1.6	U	2.0	1.6	0.45
56-23-5	Carbon tetrachloride	0.70	J	2.0	0.40	0.19
108-90-7	Chlorobenzene	0.40	U	1.0	0.40	0.17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Client Sample ID: 54400-MW55S-0615 Lab Sample ID: 280-70279-5
 Matrix: Water Lab File ID: Z8597.D
 Analysis Method: 8260B Date Collected: 06/04/2015 14:05
 Sample wt/vol: 20 (mL) Date Analyzed: 06/09/2015 22:27
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 281058 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
124-48-1	Chlorodibromomethane	0.40	U	1.0	0.40	0.17
75-00-3	Chloroethane	1.6	U	2.0	1.6	0.41
67-66-3	Chloroform	0.26	J	1.0	0.40	0.16
74-87-3	Chloromethane	0.80	U	2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-01-5	cis-1,3-Dichloropropene	0.40	U	1.0	0.40	0.16
74-95-3	Dibromomethane	0.40	U	1.0	0.40	0.17
75-71-8	Dichlorodifluoromethane	0.80	U	2.0	0.80	0.31
100-41-4	Ethylbenzene	0.40	U	1.0	0.40	0.16
87-68-3	Hexachlorobutadiene	0.80	U	1.0	0.80	0.36
98-82-8	Isopropylbenzene	0.40	U	1.0	0.40	0.19
1634-04-4	Methyl tert-butyl ether	0.80	U	5.0	0.80	0.25
75-09-2	Methylene Chloride	0.80	U	5.0	0.80	0.32
179601-23-1	m-Xylene & p-Xylene	0.80	U	2.0	0.80	0.34
91-20-3	Naphthalene	0.80	U	1.0	0.80	0.22
104-51-8	n-Butylbenzene	0.80	U	1.0	0.80	0.32
103-65-1	N-Propylbenzene	0.40	U	1.0	0.40	0.16
95-47-6	o-Xylene	0.40	U	1.0	0.40	0.19
99-87-6	p-Isopropyltoluene	0.40	U	1.0	0.40	0.17
135-98-8	sec-Butylbenzene	0.40	U	1.0	0.40	0.17
100-42-5	Styrene	0.40	U	1.0	0.40	0.17
75-65-0	tert-Butyl alcohol	32	U	50	32	11
98-06-6	tert-Butylbenzene	0.40	U	1.0	0.40	0.16
127-18-4	Tetrachloroethene	0.40	U	1.0	0.40	0.20
108-88-3	Toluene	0.40	U	1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-02-6	trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.19
79-01-6	Trichloroethene	3.5		1.0	0.40	0.16
75-69-4	Trichlorofluoromethane	0.80	U	2.0	0.80	0.29
75-01-4	Vinyl chloride	0.20	U	1.5	0.20	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Client Sample ID: 54400-MW55S-0615 Lab Sample ID: 280-70279-5
 Matrix: Water Lab File ID: Z8597.D
 Analysis Method: 8260B Date Collected: 06/04/2015 14:05
 Sample wt/vol: 20 (mL) Date Analyzed: 06/09/2015 22:27
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 281058 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		81-118
460-00-4	4-Bromofluorobenzene (Surr)	104		85-114
1868-53-7	Dibromofluoromethane (Surr)	107		80-119
2037-26-5	Toluene-d8 (Surr)	99		89-112

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8597.D
 Lims ID: 280-70279-A-5 Lab Sample ID: 280-70279-5
 Client ID: 54400-MW55S-0615
 Sample Type: Client
 Inject. Date: 09-Jun-2015 22:27:30 ALS Bottle#: 13 Worklist Smp#: 15
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: 280-70279-A-5 pH<2
 Operator ID: bergerb Instrument ID: VMS_Z
 Method: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\AQ_VMSZ_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 10-Jun-2015 15:45:19 Calib Date: 02-Jun-2015 01:06:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8233.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK012

First Level Reviewer: bergerb

Date: 10-Jun-2015 15:45:45

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.467	3.479	-0.012	83	147230	250.0	
* 2 Fluorobenzene	96	6.373	6.384	-0.011	98	826092	12.5	
* 3 1,4-Dioxane-d8	96		7.292				ND	
* 4 Chlorobenzene-d5	119	11.019	11.013	0.006	84	221477	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.126	15.120	0.006	96	341089	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.451	5.462	-0.011	94	444197	11.3	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	5.886	5.897	-0.011	93	150029	10.0	
\$ 10 Toluene-d8 (Surr)	98	8.705	8.699	0.006	92	746096	10.4	
\$ 11 4-Bromofluorobenzene (Surr	95	13.055	13.049	0.006	91	420456	10.9	
27 Dichlorodifluoromethane	85		1.913				ND	
30 Chloromethane	50		1.982				ND	
32 Vinyl chloride	62		2.104				ND	
35 Bromomethane	94		2.330				ND	
36 Chloroethane	64		2.382				ND	
38 Trichlorofluoromethane	101		2.591				ND	
45 1,1-Dichloroethene	96	3.032	3.026	0.006	98	165543	7.42	
48 Acetone	43		3.026				ND	
50 Carbon disulfide	76		3.270				ND	
54 Methylene Chloride	84	3.450	3.461	-0.011	34	5262	0.2644	
55 2-Methyl-2-propanol	59		3.566				ND	
57 trans-1,2-Dichloroethene	96		3.757				ND	
56 Methyl tert-butyl ether	73		3.774				ND	
62 1,1-Dichloroethane	63		4.192				ND	
67 2-Butanone (MEK)	43		4.853				ND	
65 cis-1,2-Dichloroethene	96		4.871				ND	
66 2,2-Dichloropropane	77		4.888				ND	
71 Chlorobromomethane	128		5.166				ND	
74 Chloroform	83	5.242	5.253	-0.011	91	11318	0.2644	
75 1,1,1-Trichloroethane	97		5.549				ND	
78 1,1-Dichloropropene	75		5.741				ND	
77 Carbon tetrachloride	117	5.764	5.775	-0.011	94	30499	0.7016	
82 1,2-Dichloroethane	62		6.002				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Benzene	78		6.002				ND	
85 Trichloroethene	95	6.895	6.907	-0.011	96	104298	3.54	
90 1,2-Dichloropropane	63		7.202				ND	
92 Dibromomethane	93		7.376				ND	
94 Dichlorobromomethane	83		7.603				ND	
97 cis-1,3-Dichloropropene	75		8.264				ND	
98 4-Methyl-2-pentanone (MIBK)	43		8.525				ND	
99 Toluene	91		8.803				ND	
100 trans-1,3-Dichloropropene	75		9.116				ND	
102 1,1,2-Trichloroethane	97		9.412				ND	
104 1,3-Dichloropropane	76		9.673				ND	
103 Tetrachloroethene	164		9.708				ND	
105 2-Hexanone	43		9.865				ND	
107 Chlorodibromomethane	129		10.056				ND	
109 Ethylene Dibromide	107		10.230				ND	
111 Chlorobenzene	112		11.065				ND	
113 1,1,1,2-Tetrachloroethane	131		11.222				ND	
112 Ethylbenzene	106		11.274				ND	
114 m-Xylene & p-Xylene	106		11.483				ND	
115 o-Xylene	106		12.162				ND	
116 Styrene	104		12.179				ND	
117 Bromoform	173		12.457				ND	
118 Isopropylbenzene	105		12.823				ND	
121 Bromobenzene	156		13.293				ND	
122 1,1,2,2-Tetrachloroethane	83		13.310				ND	
124 1,2,3-Trichloropropane	110		13.362				ND	
123 N-Propylbenzene	120		13.536				ND	
126 2-Chlorotoluene	126		13.658				ND	
128 4-Chlorotoluene	126		13.849				ND	
127 1,3,5-Trimethylbenzene	105		13.867				ND	
129 tert-Butylbenzene	119		14.441				ND	
130 1,2,4-Trimethylbenzene	105		14.528				ND	
131 sec-Butylbenzene	134		14.841				ND	
132 1,3-Dichlorobenzene	146		14.998				ND	
133 4-Isopropyltoluene	119		15.120				ND	
134 1,4-Dichlorobenzene	146		15.154				ND	
138 1,2-Dichlorobenzene	146		15.798				ND	
137 n-Butylbenzene	91		15.850				ND	
139 1,2-Dibromo-3-Chloropropan	157		16.929				ND	
141 1,2,4-Trichlorobenzene	180		17.869				ND	
142 Hexachlorobutadiene	225		18.060				ND	
143 Naphthalene	128		18.095				ND	
144 1,2,3-Trichlorobenzene	180		18.339				ND	

Reagents:

MV-567649-D_00001

Amount Added: 1.00

Units: uL

Run Reagent

MV-ARCH SS A_00047

Amount Added: 0.84

Units: uL

Run Reagent

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8597.D

Injection Date: 09-Jun-2015 22:27:30

Instrument ID: VMS_Z

Operator ID: bergerb

Lims ID: 280-70279-A-5

Lab Sample ID: 280-70279-5

Worklist Smp#: 15

Client ID: 54400-MW55S-0615

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

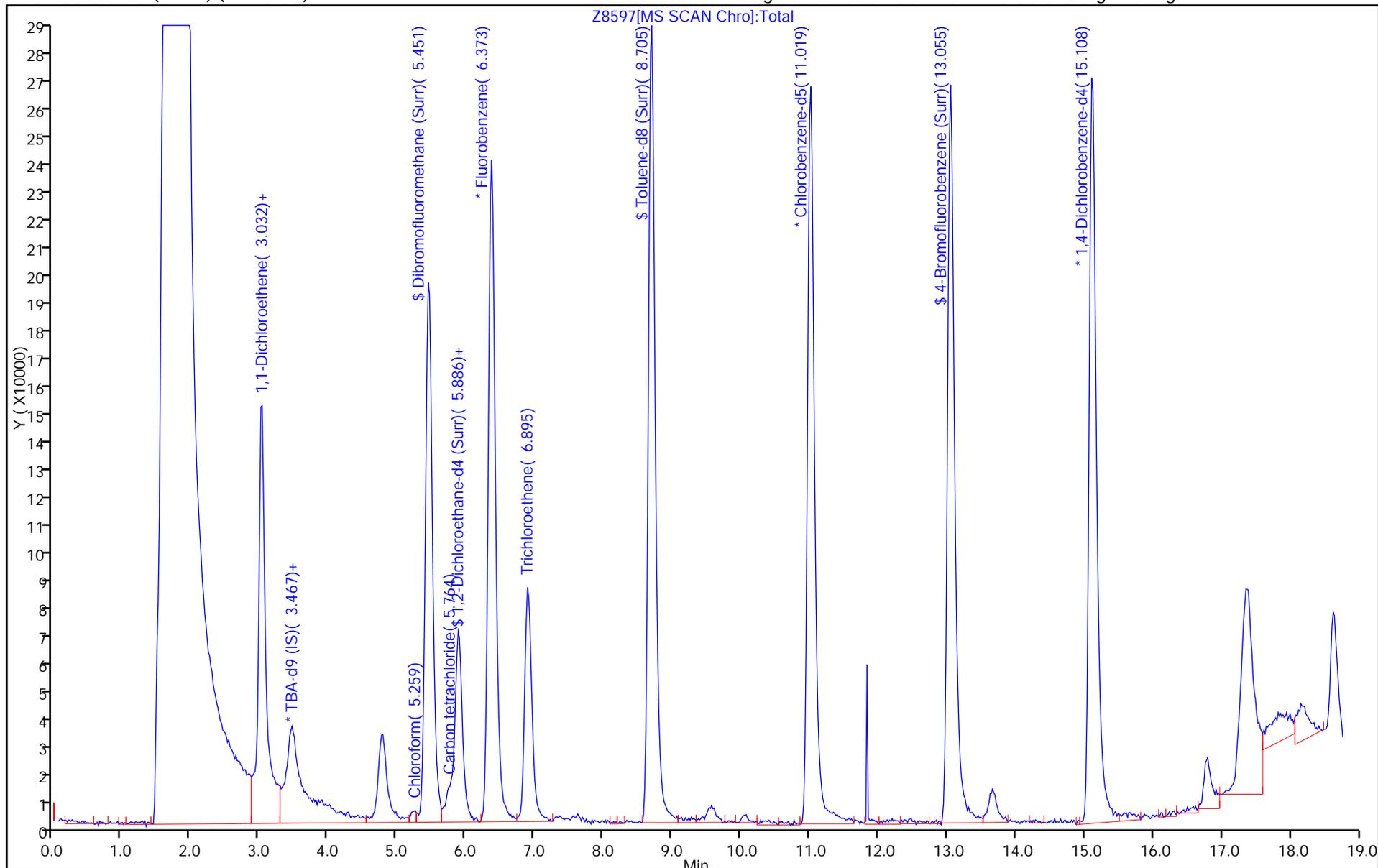
ALS Bottle#: 13

Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8597.D

Injection Date: 09-Jun-2015 22:27:30

Instrument ID: VMS_Z

Lims ID: 280-70279-A-5

Lab Sample ID: 280-70279-5

Client ID: 54400-MW55S-0615

Operator ID: bergerb

ALS Bottle#: 13

Worklist Smp#: 15

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

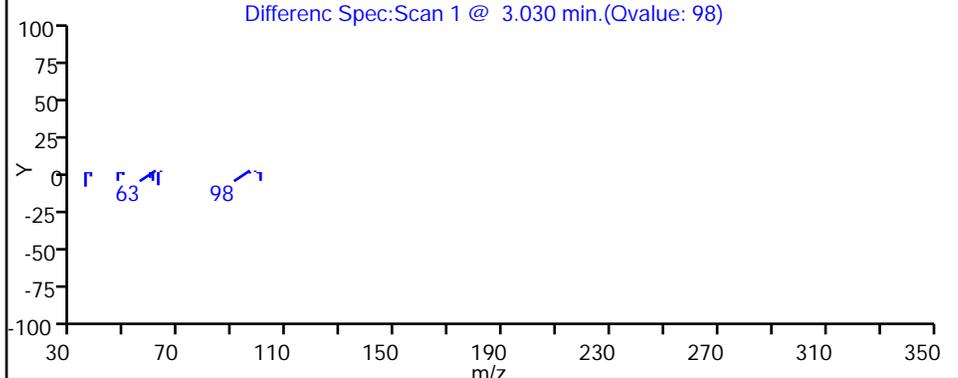
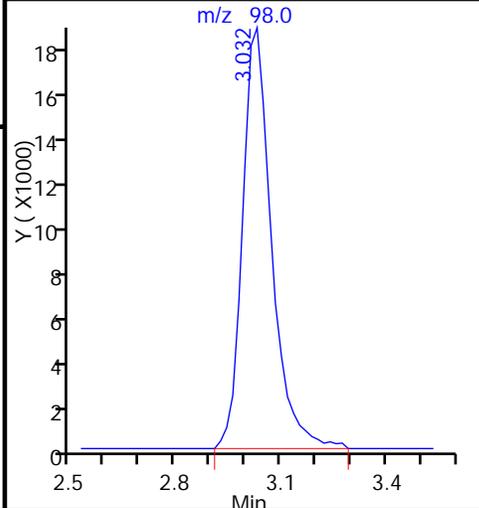
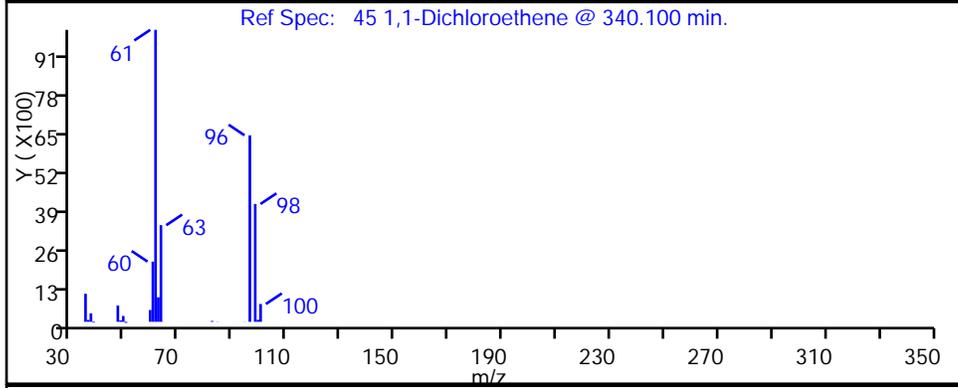
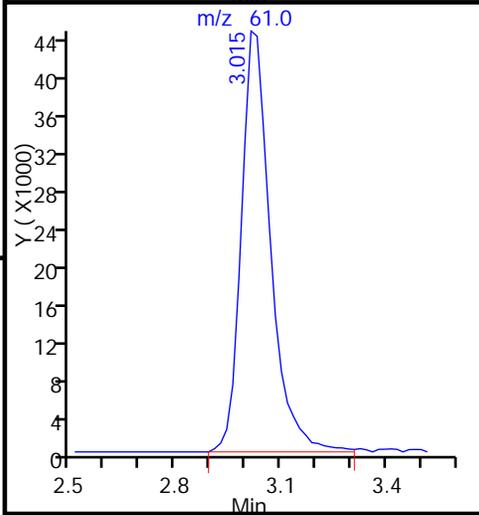
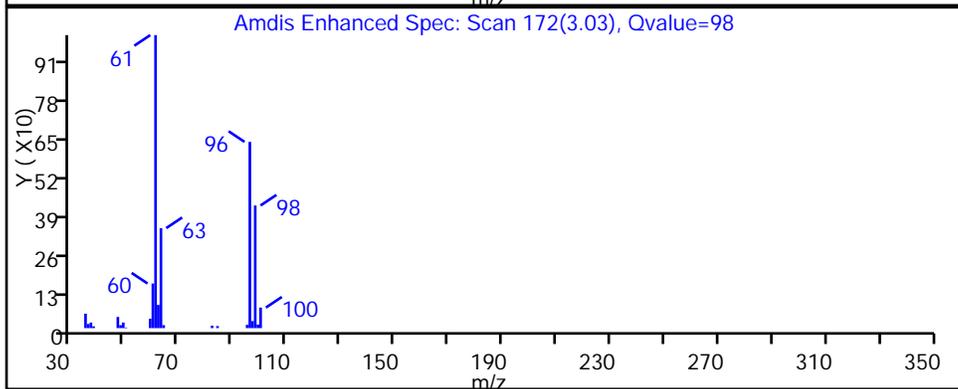
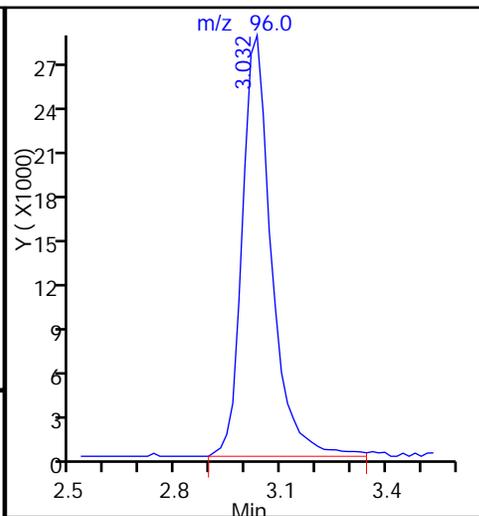
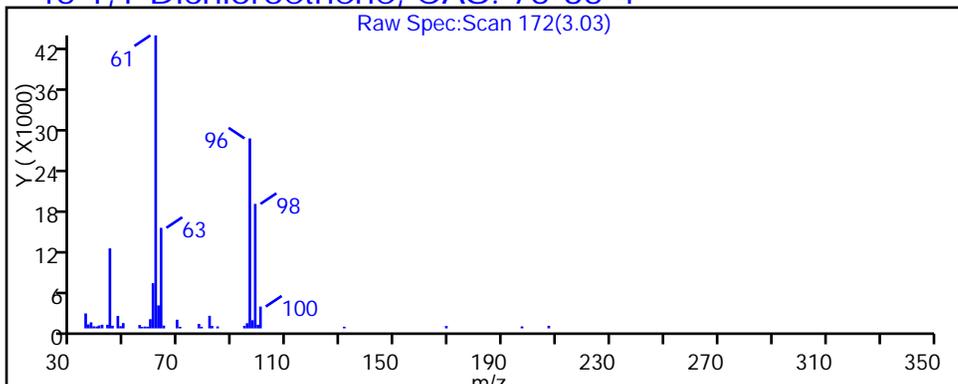
Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Detector: MS SCAN

45 1,1-Dichloroethene, CAS: 75-35-4



TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8597.D

Injection Date: 09-Jun-2015 22:27:30

Instrument ID: VMS_Z

Lims ID: 280-70279-A-5

Lab Sample ID: 280-70279-5

Client ID: 54400-MW55S-0615

Operator ID: bergerb

ALS Bottle#: 13

Worklist Smp#: 15

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

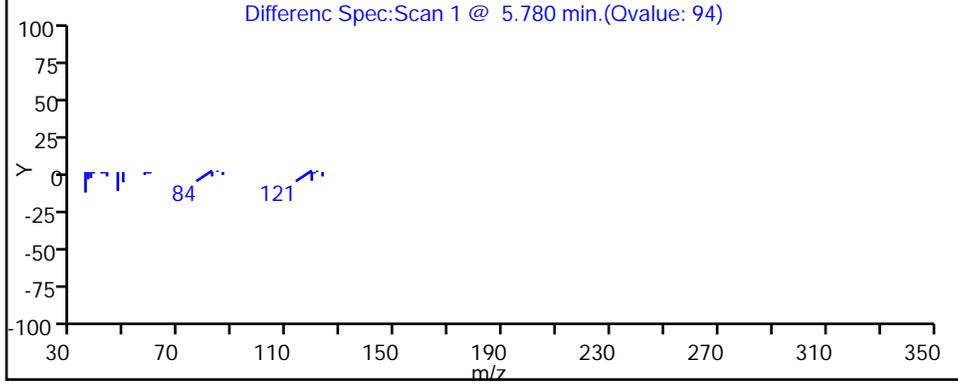
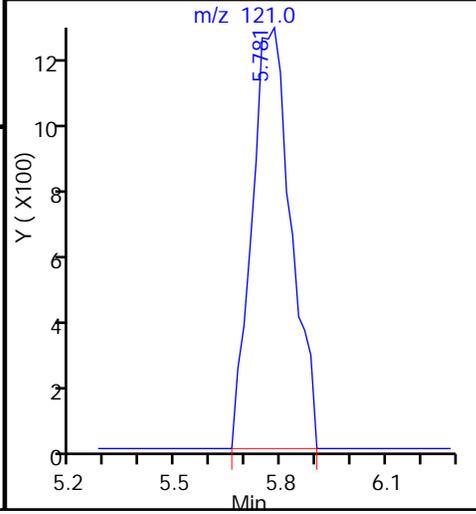
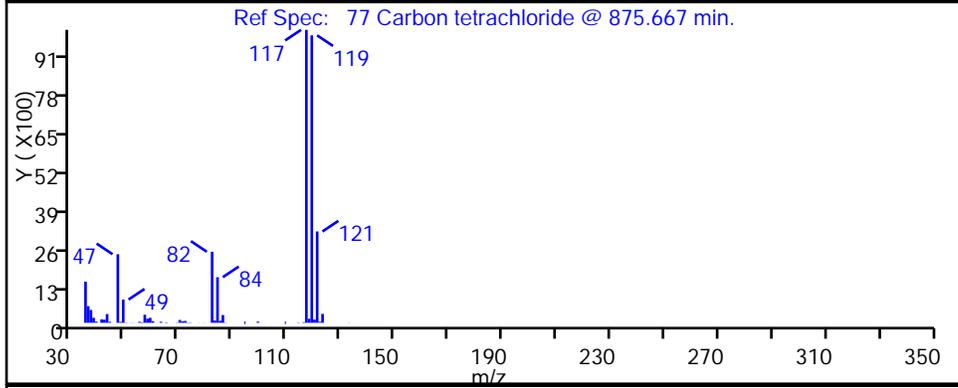
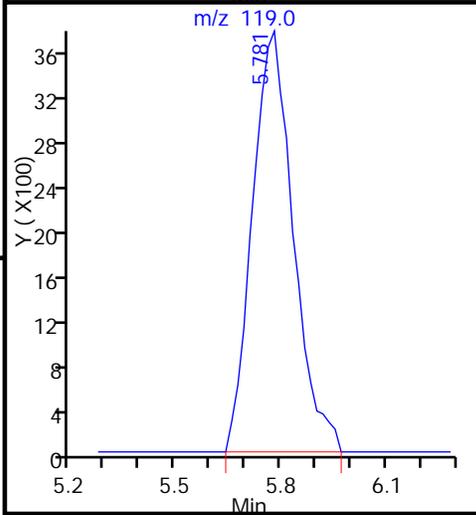
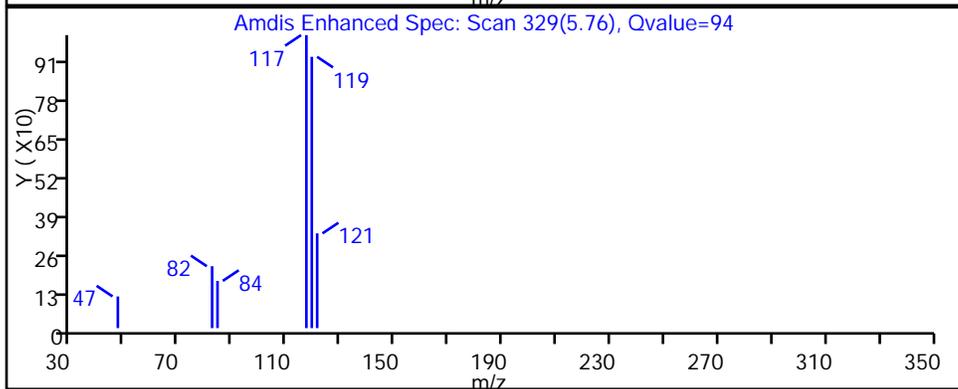
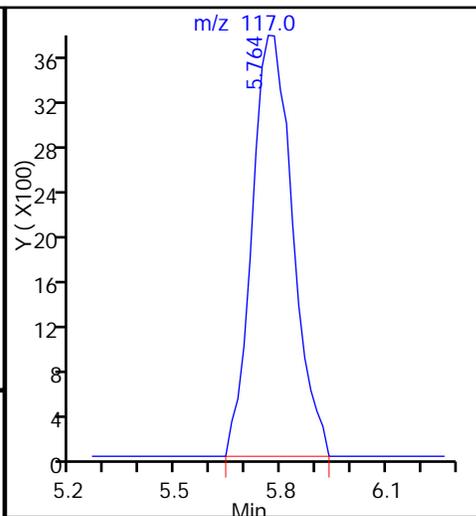
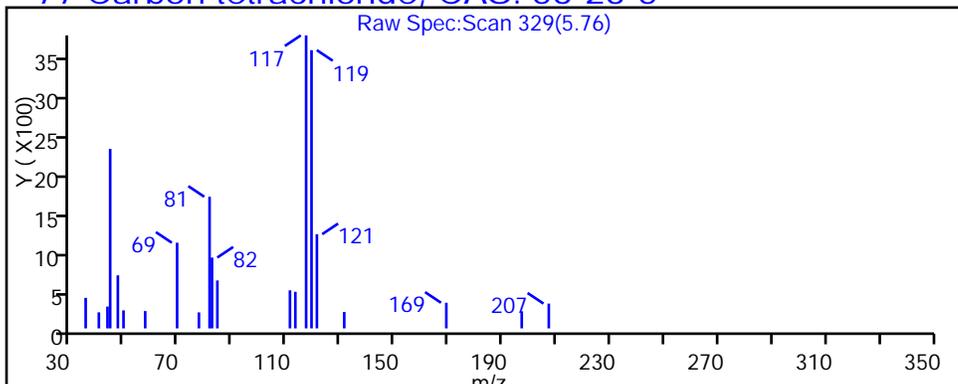
Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Detector: MS SCAN

77 Carbon tetrachloride, CAS: 56-23-5



TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8597.D

Injection Date: 09-Jun-2015 22:27:30

Instrument ID: VMS_Z

Lims ID: 280-70279-A-5

Lab Sample ID: 280-70279-5

Client ID: 54400-MW55S-0615

Operator ID: bergerb

ALS Bottle#: 13

Worklist Smp#: 15

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

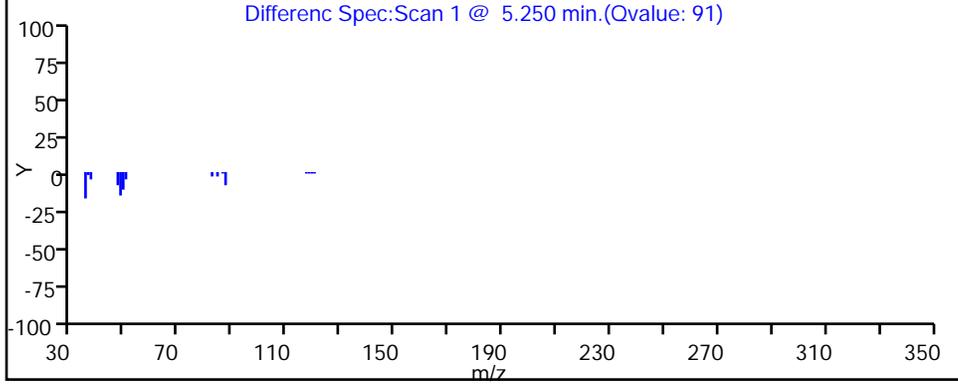
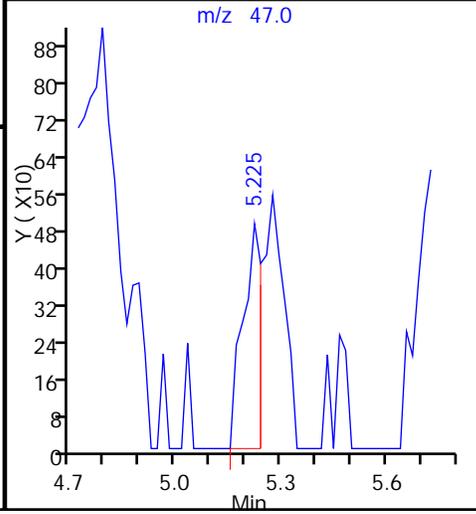
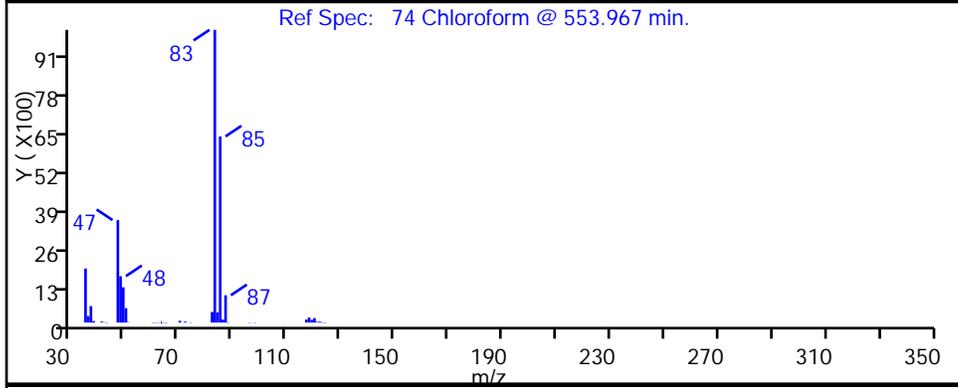
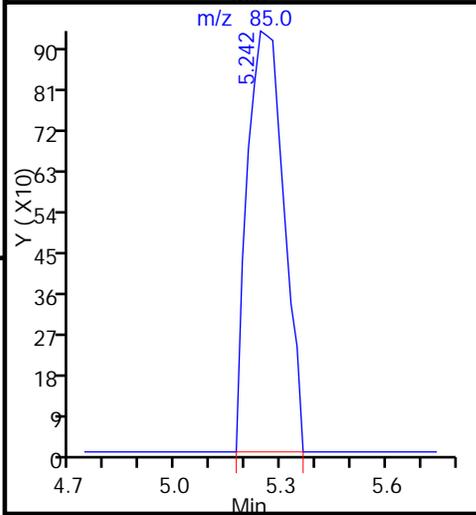
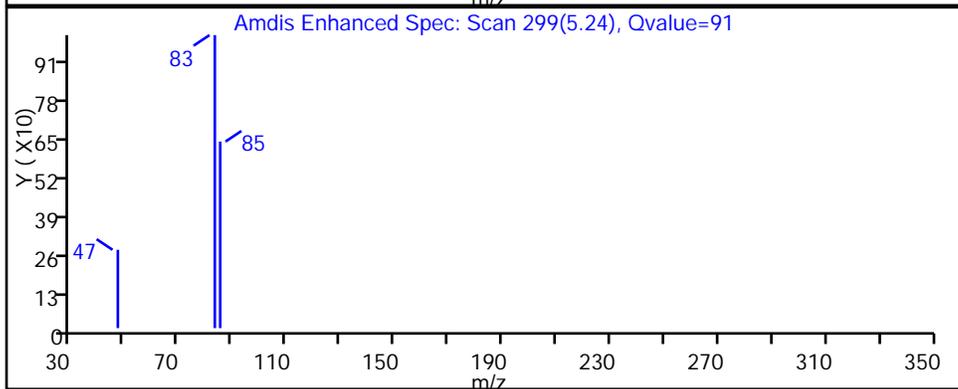
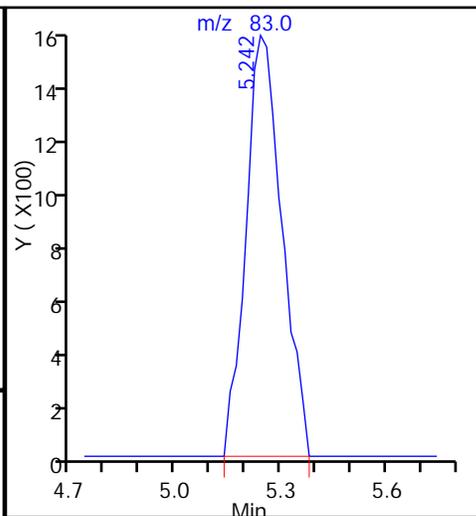
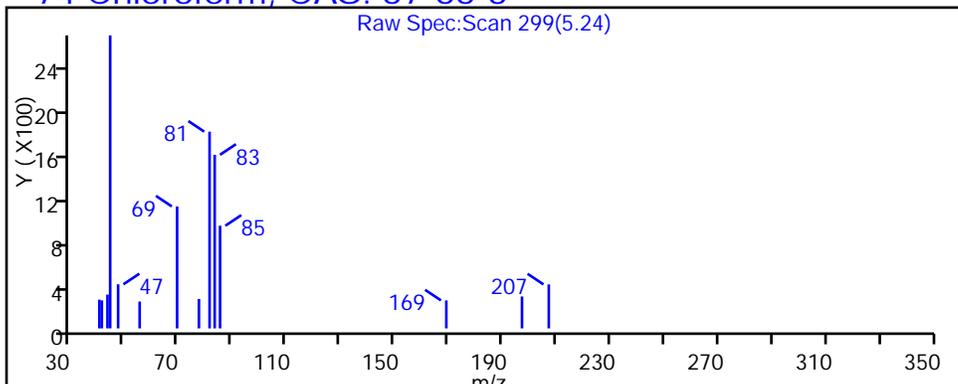
Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Detector: MS SCAN

74 Chloroform, CAS: 67-66-3



TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8597.D

Injection Date: 09-Jun-2015 22:27:30

Instrument ID: VMS_Z

Lims ID: 280-70279-A-5

Lab Sample ID: 280-70279-5

Client ID: 54400-MW55S-0615

Operator ID: bergerb

ALS Bottle#: 13

Worklist Smp#: 15

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

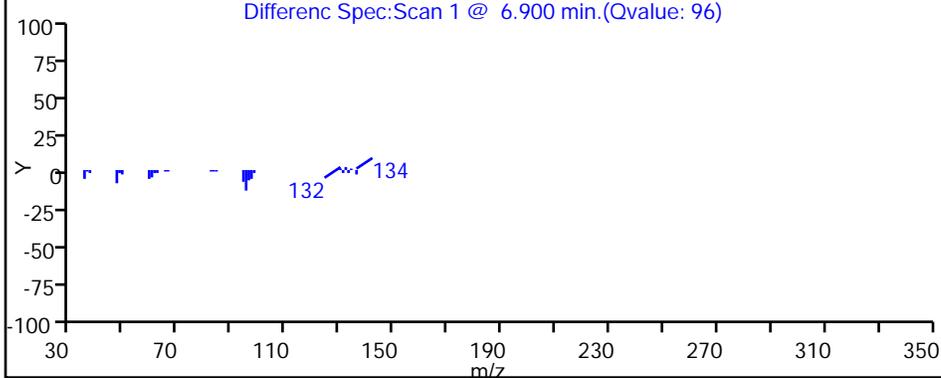
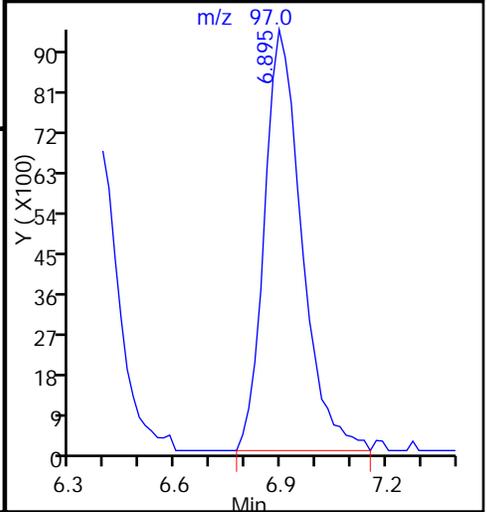
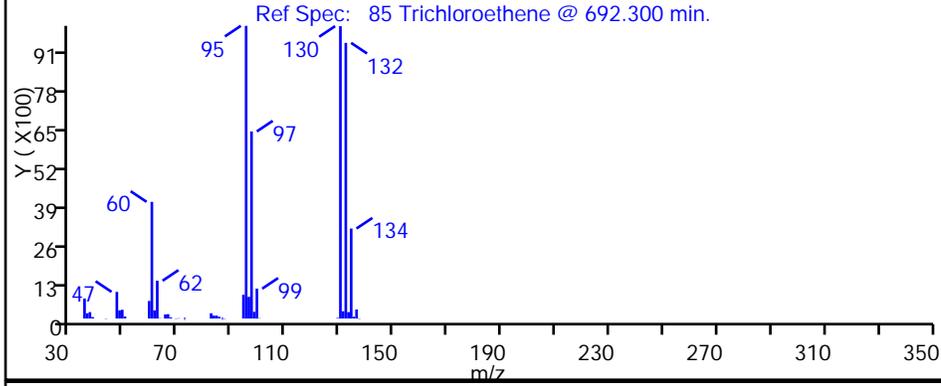
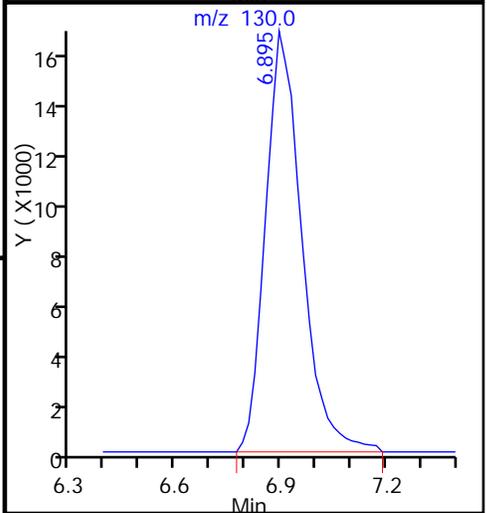
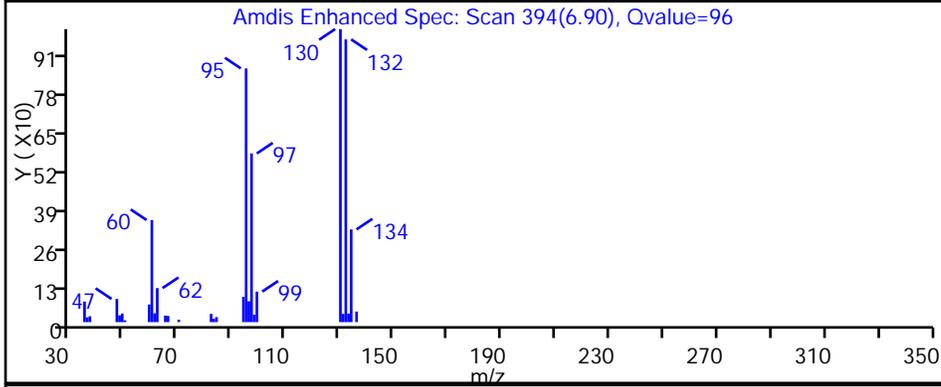
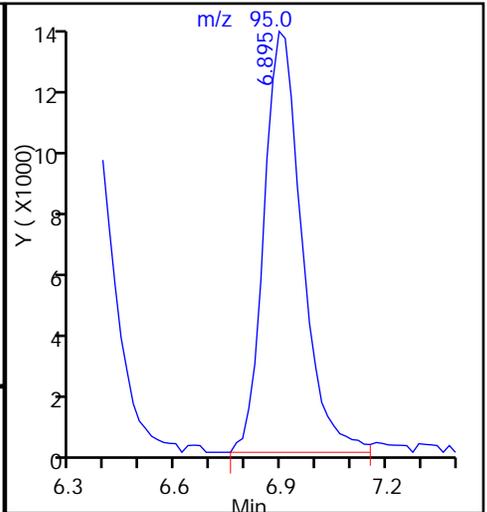
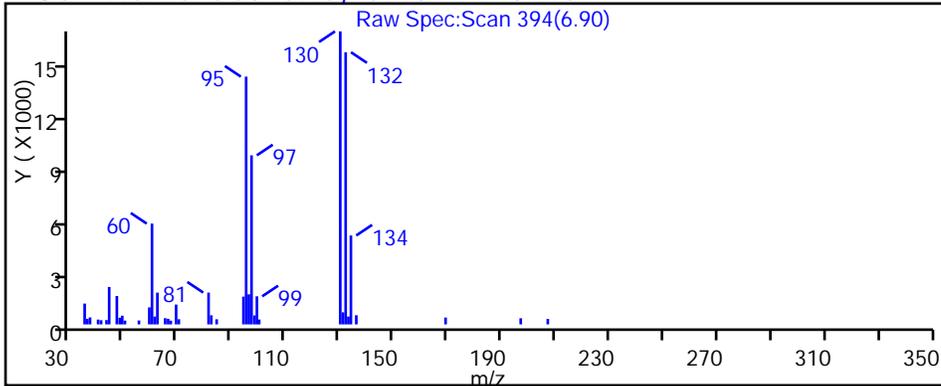
Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Detector: MS SCAN

85 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Client Sample ID: 54400-MW55D-0615 Lab Sample ID: 280-70279-6
 Matrix: Water Lab File ID: Z8598.D
 Analysis Method: 8260B Date Collected: 06/04/2015 15:10
 Sample wt/vol: 20 (mL) Date Analyzed: 06/09/2015 22:50
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 281058 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	0.80	U	1.0	0.80	0.17
71-55-6	1,1,1-Trichloroethane	0.40	U	1.0	0.40	0.16
79-34-5	1,1,2,2-Tetrachloroethane	0.80	U	1.0	0.80	0.20
79-00-5	1,1,2-Trichloroethane	0.80	U	1.0	0.80	0.32
75-34-3	1,1-Dichloroethane	0.80	U	1.0	0.80	0.16
75-35-4	1,1-Dichloroethene	16		1.0	0.80	0.14
563-58-6	1,1-Dichloropropene	0.40	U	1.0	0.40	0.15
87-61-6	1,2,3-Trichlorobenzene	0.80	U	1.0	0.80	0.18
96-18-4	1,2,3-Trichloropropane	0.80	U	3.0	0.80	0.77
120-82-1	1,2,4-Trichlorobenzene	0.80	U	1.0	0.80	0.32
95-63-6	1,2,4-Trimethylbenzene	0.40	U	1.0	0.40	0.14
96-12-8	1,2-Dibromo-3-Chloropropane	1.6	U	5.0	1.6	0.81
106-93-4	1,2-Dibromoethane	0.40	U	1.0	0.40	0.18
95-50-1	1,2-Dichlorobenzene	0.40	U	1.0	0.40	0.13
107-06-2	1,2-Dichloroethane	0.40	U	1.0	0.40	0.13
78-87-5	1,2-Dichloropropane	0.40	U	1.0	0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	0.40	U	1.0	0.40	0.14
541-73-1	1,3-Dichlorobenzene	0.40	U	1.0	0.40	0.16
142-28-9	1,3-Dichloropropane	0.80	U	1.0	0.80	0.15
106-46-7	1,4-Dichlorobenzene	0.40	U	1.0	0.40	0.16
594-20-7	2,2-Dichloropropane	0.40	U	1.0	0.40	0.20
78-93-3	2-Butanone (MEK)	4.0	U	6.0	4.0	1.8
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40	0.17
591-78-6	2-Hexanone	4.0	U	5.0	4.0	1.4
106-43-4	4-Chlorotoluene	0.80	U	1.0	0.80	0.17
108-10-1	4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	1.0
67-64-1	Acetone	6.4	U	10	6.4	1.9
71-43-2	Benzene	0.40	U	1.0	0.40	0.16
108-86-1	Bromobenzene	0.40	U	1.0	0.40	0.17
74-97-5	Bromochloromethane	0.20	U	1.0	0.20	0.10
75-27-4	Bromodichloromethane	0.40	U	1.0	0.40	0.17
75-25-2	Bromoform	0.40	U	1.0	0.40	0.19
74-83-9	Bromomethane	0.80	U	2.0	0.80	0.21
75-15-0	Carbon disulfide	1.6	U	2.0	1.6	0.45
56-23-5	Carbon tetrachloride	3.2		2.0	0.40	0.19
108-90-7	Chlorobenzene	0.40	U	1.0	0.40	0.17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Client Sample ID: 54400-MW55D-0615 Lab Sample ID: 280-70279-6
 Matrix: Water Lab File ID: Z8598.D
 Analysis Method: 8260B Date Collected: 06/04/2015 15:10
 Sample wt/vol: 20 (mL) Date Analyzed: 06/09/2015 22:50
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 281058 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
124-48-1	Chlorodibromomethane	0.40	U	1.0	0.40	0.17
75-00-3	Chloroethane	1.6	U	2.0	1.6	0.41
67-66-3	Chloroform	0.32	J	1.0	0.40	0.16
74-87-3	Chloromethane	0.80	U	2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-01-5	cis-1,3-Dichloropropene	0.40	U	1.0	0.40	0.16
74-95-3	Dibromomethane	0.40	U	1.0	0.40	0.17
75-71-8	Dichlorodifluoromethane	0.80	U	2.0	0.80	0.31
100-41-4	Ethylbenzene	0.40	U	1.0	0.40	0.16
87-68-3	Hexachlorobutadiene	0.80	U	1.0	0.80	0.36
98-82-8	Isopropylbenzene	0.40	U	1.0	0.40	0.19
1634-04-4	Methyl tert-butyl ether	0.80	U	5.0	0.80	0.25
75-09-2	Methylene Chloride	0.80	U	5.0	0.80	0.32
179601-23-1	m-Xylene & p-Xylene	0.80	U	2.0	0.80	0.34
91-20-3	Naphthalene	0.80	U	1.0	0.80	0.22
104-51-8	n-Butylbenzene	0.80	U	1.0	0.80	0.32
103-65-1	N-Propylbenzene	0.40	U	1.0	0.40	0.16
95-47-6	o-Xylene	0.40	U	1.0	0.40	0.19
99-87-6	p-Isopropyltoluene	0.40	U	1.0	0.40	0.17
135-98-8	sec-Butylbenzene	0.40	U	1.0	0.40	0.17
100-42-5	Styrene	0.40	U	1.0	0.40	0.17
75-65-0	tert-Butyl alcohol	32	U	50	32	11
98-06-6	tert-Butylbenzene	0.40	U	1.0	0.40	0.16
127-18-4	Tetrachloroethene	0.40	U	1.0	0.40	0.20
108-88-3	Toluene	0.40	U	1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-02-6	trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.19
79-01-6	Trichloroethene	7.2		1.0	0.40	0.16
75-69-4	Trichlorofluoromethane	0.80	U	2.0	0.80	0.29
75-01-4	Vinyl chloride	0.20	U	1.5	0.20	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Client Sample ID: 54400-MW55D-0615 Lab Sample ID: 280-70279-6
 Matrix: Water Lab File ID: Z8598.D
 Analysis Method: 8260B Date Collected: 06/04/2015 15:10
 Sample wt/vol: 20 (mL) Date Analyzed: 06/09/2015 22:50
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 281058 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		81-118
460-00-4	4-Bromofluorobenzene (Surr)	104		85-114
1868-53-7	Dibromofluoromethane (Surr)	108		80-119
2037-26-5	Toluene-d8 (Surr)	101		89-112

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8598.D
 Lims ID: 280-70279-H-6 Lab Sample ID: 280-70279-6
 Client ID: 54400-MW55D-0615
 Sample Type: Client
 Inject. Date: 09-Jun-2015 22:50:30 ALS Bottle#: 14 Worklist Smp#: 16
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: 280-70279-H-6 pH<2
 Operator ID: bergerb Instrument ID: VMS_Z
 Method: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\AQ_VMSZ_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 10-Jun-2015 15:45:19 Calib Date: 02-Jun-2015 01:06:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8233.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK012

First Level Reviewer: bergerb Date: 10-Jun-2015 15:45:35

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.465	3.479	-0.014	84	144721	250.0	
* 2 Fluorobenzene	96	6.371	6.384	-0.013	98	821200	12.5	
* 3 1,4-Dioxane-d8	96		7.292				ND	
* 4 Chlorobenzene-d5	119	11.017	11.013	0.004	84	221201	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.123	15.120	0.003	96	341767	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.466	5.462	0.004	89	446592	11.4	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	5.883	5.897	-0.014	93	152688	10.2	
\$ 10 Toluene-d8 (Surr)	98	8.702	8.699	0.003	92	764700	10.6	
\$ 11 4-Bromofluorobenzene (Surr	95	13.052	13.049	0.003	91	422719	10.9	
27 Dichlorodifluoromethane	85		1.913				ND	
30 Chloromethane	50		1.982				ND	
32 Vinyl chloride	62		2.104				ND	
35 Bromomethane	94		2.330				ND	
36 Chloroethane	64		2.382				ND	
38 Trichlorofluoromethane	101		2.591				ND	
45 1,1-Dichloroethene	96	3.030	3.026	0.004	98	350017	15.8	
48 Acetone	43		3.026				ND	
50 Carbon disulfide	76		3.270				ND	
54 Methylene Chloride	84	3.447	3.461	-0.014	49	4574	0.2312	
55 2-Methyl-2-propanol	59		3.566				ND	
57 trans-1,2-Dichloroethene	96		3.757				ND	
56 Methyl tert-butyl ether	73		3.774				ND	
62 1,1-Dichloroethane	63		4.192				ND	
67 2-Butanone (MEK)	43		4.853				ND	
65 cis-1,2-Dichloroethene	96		4.871				ND	
66 2,2-Dichloropropane	77		4.888				ND	
71 Chlorobromomethane	128		5.166				ND	
74 Chloroform	83	5.257	5.253	0.004	87	13719	0.3224	
75 1,1,1-Trichloroethane	97		5.549				ND	
78 1,1-Dichloropropene	75		5.741				ND	
77 Carbon tetrachloride	117	5.779	5.775	0.004	97	139412	3.23	
82 1,2-Dichloroethane	62		6.002				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Benzene	78		6.002				ND	
85 Trichloroethene	95	6.893	6.907	-0.013	96	210968	7.21	
90 1,2-Dichloropropane	63		7.202				ND	
92 Dibromomethane	93		7.376				ND	
94 Dichlorobromomethane	83		7.603				ND	
97 cis-1,3-Dichloropropene	75		8.264				ND	
98 4-Methyl-2-pentanone (MIBK)	43		8.525				ND	
99 Toluene	91		8.803				ND	
100 trans-1,3-Dichloropropene	75		9.116				ND	
102 1,1,2-Trichloroethane	97		9.412				ND	
104 1,3-Dichloropropane	76		9.673				ND	
103 Tetrachloroethene	164		9.708				ND	
105 2-Hexanone	43		9.865				ND	
107 Chlorodibromomethane	129		10.056				ND	
109 Ethylene Dibromide	107		10.230				ND	
111 Chlorobenzene	112		11.065				ND	
113 1,1,1,2-Tetrachloroethane	131		11.222				ND	
112 Ethylbenzene	106		11.274				ND	
114 m-Xylene & p-Xylene	106		11.483				ND	
115 o-Xylene	106		12.162				ND	
116 Styrene	104		12.179				ND	
117 Bromoform	173		12.457				ND	
118 Isopropylbenzene	105		12.823				ND	
121 Bromobenzene	156		13.293				ND	
122 1,1,2,2-Tetrachloroethane	83		13.310				ND	
124 1,2,3-Trichloropropane	110		13.362				ND	
123 N-Propylbenzene	120		13.536				ND	
126 2-Chlorotoluene	126		13.658				ND	
128 4-Chlorotoluene	126		13.849				ND	
127 1,3,5-Trimethylbenzene	105		13.867				ND	
129 tert-Butylbenzene	119		14.441				ND	
130 1,2,4-Trimethylbenzene	105		14.528				ND	
131 sec-Butylbenzene	134		14.841				ND	
132 1,3-Dichlorobenzene	146		14.998				ND	
133 4-Isopropyltoluene	119		15.120				ND	
134 1,4-Dichlorobenzene	146		15.154				ND	
138 1,2-Dichlorobenzene	146		15.798				ND	
137 n-Butylbenzene	91		15.850				ND	
139 1,2-Dibromo-3-Chloropropan	157		16.929				ND	
141 1,2,4-Trichlorobenzene	180		17.869				ND	
142 Hexachlorobutadiene	225		18.060				ND	
143 Naphthalene	128		18.095				ND	
144 1,2,3-Trichlorobenzene	180		18.339				ND	

Reagents:

MV-567649-D_00001

Amount Added: 1.00

Units: uL

Run Reagent

MV-ARCH SS A_00047

Amount Added: 0.84

Units: uL

Run Reagent

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8598.D

Injection Date: 09-Jun-2015 22:50:30

Instrument ID: VMS_Z

Operator ID: bergerb

Lims ID: 280-70279-H-6

Lab Sample ID: 280-70279-6

Worklist Smp#: 16

Client ID: 54400-MW55D-0615

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

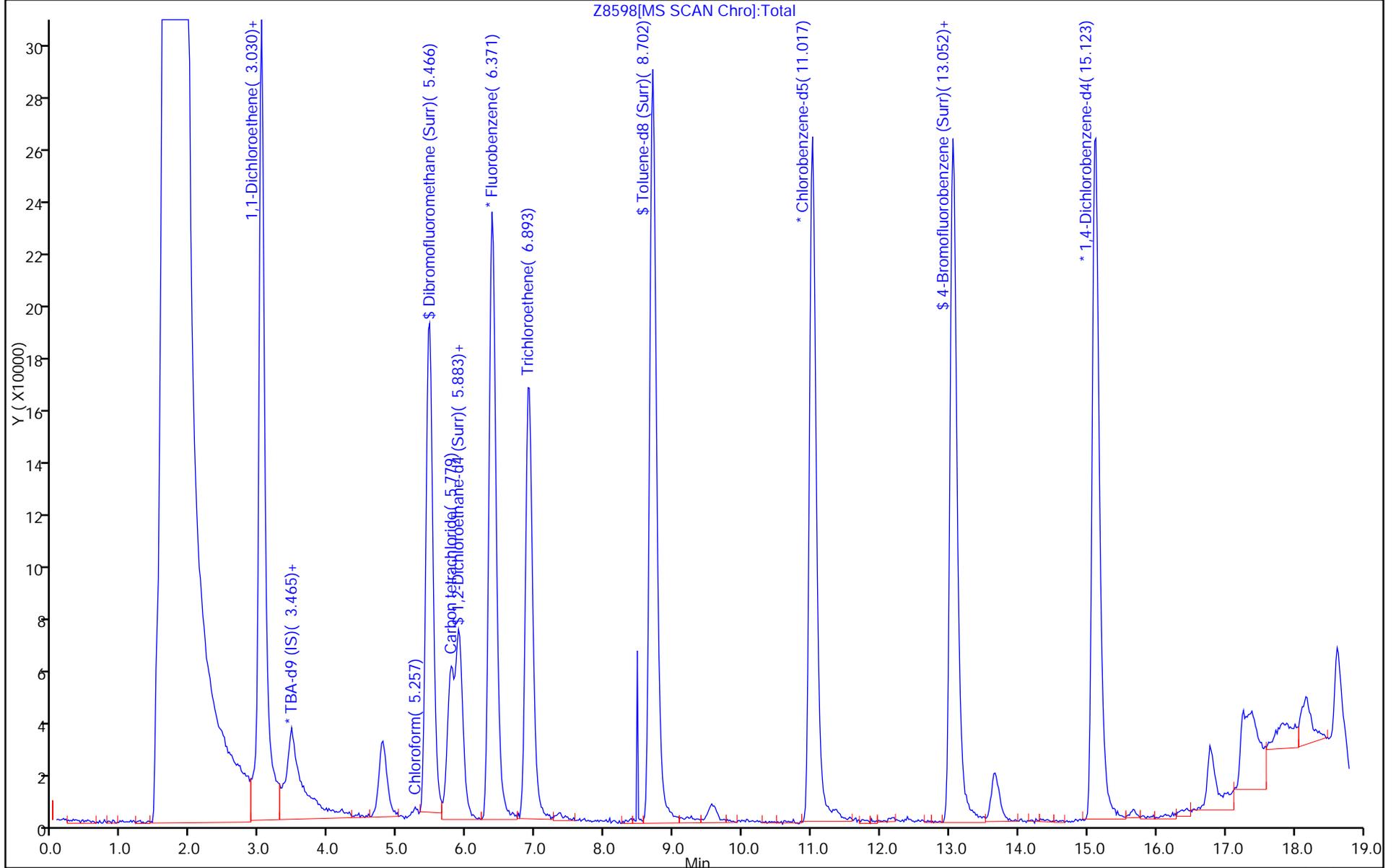
ALS Bottle#: 14

Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8598.D

Injection Date: 09-Jun-2015 22:50:30

Instrument ID: VMS_Z

Lims ID: 280-70279-H-6

Lab Sample ID: 280-70279-6

Client ID: 54400-MW55D-0615

Operator ID: bergerb

ALS Bottle#: 14

Worklist Smp#: 16

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

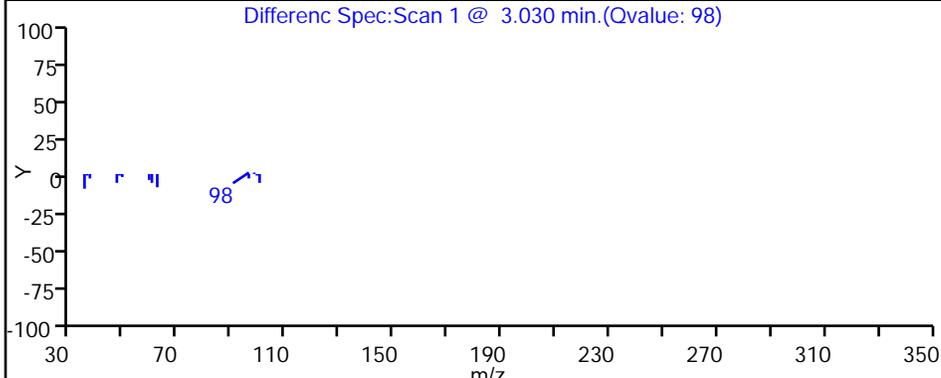
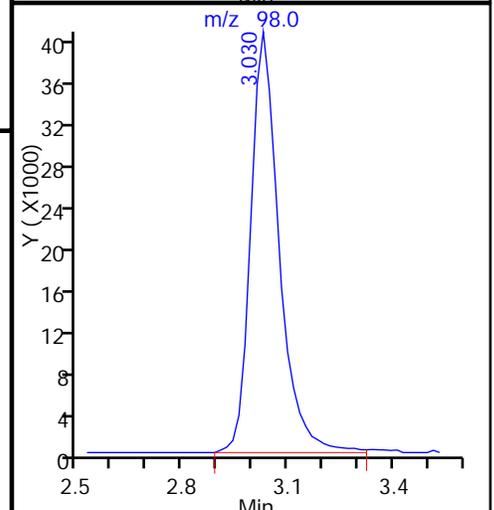
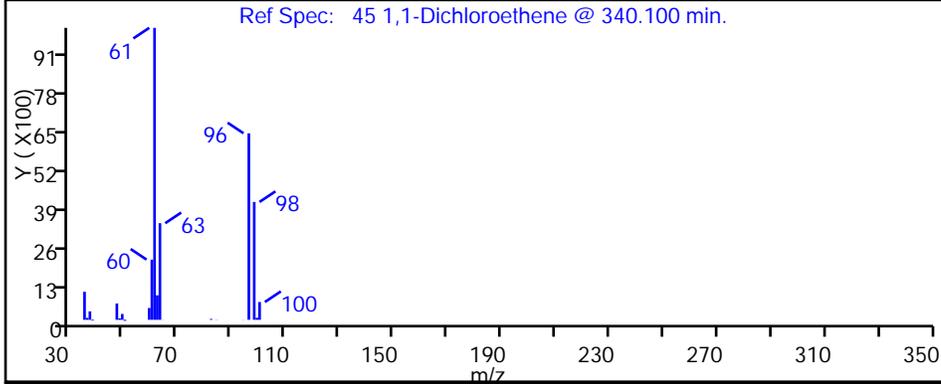
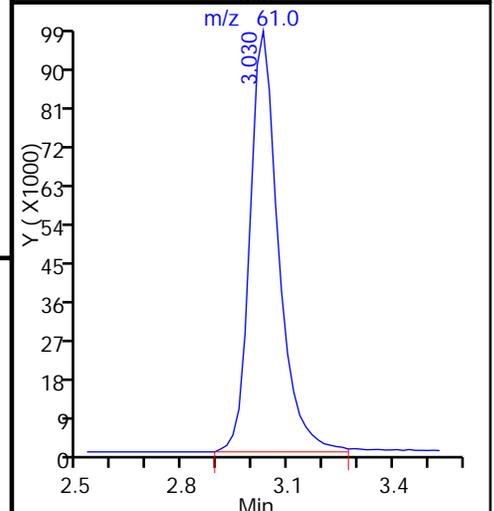
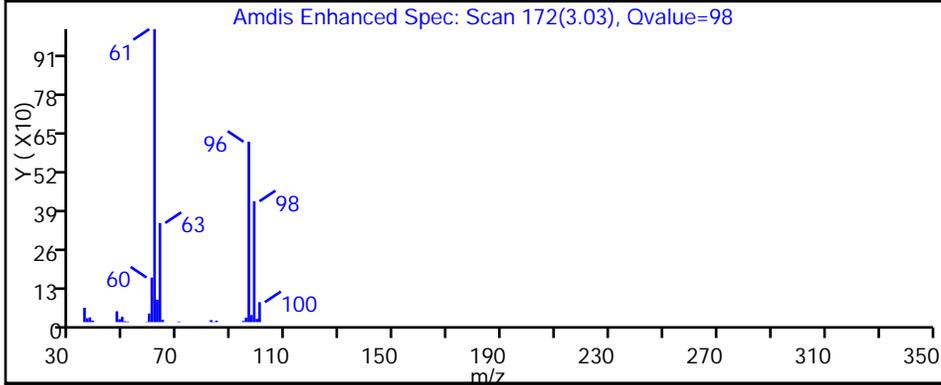
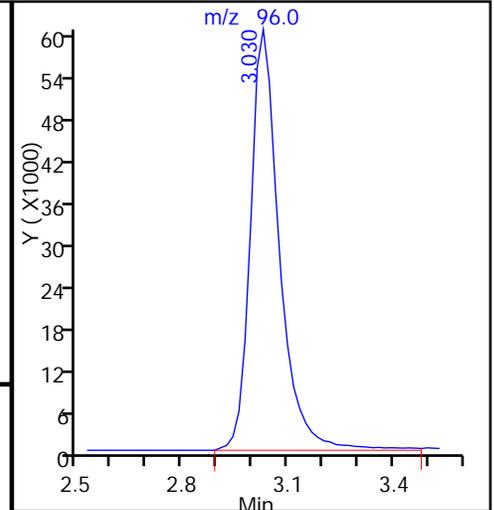
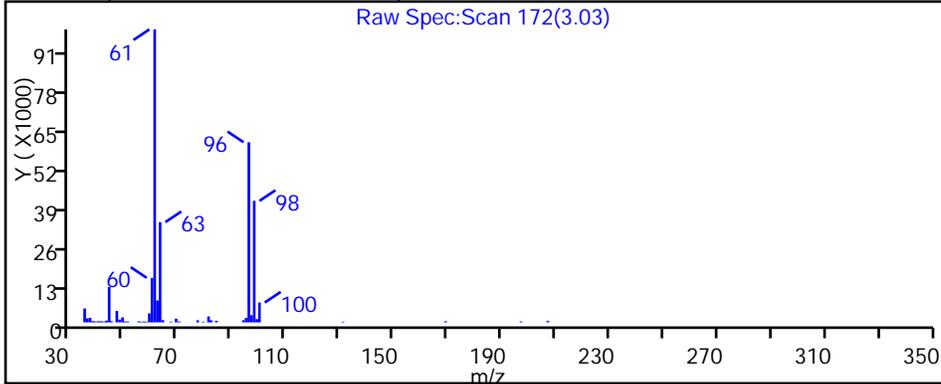
Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Detector: MS SCAN

45 1,1-Dichloroethene, CAS: 75-35-4



TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8598.D

Injection Date: 09-Jun-2015 22:50:30

Instrument ID: VMS_Z

Lims ID: 280-70279-H-6

Lab Sample ID: 280-70279-6

Client ID: 54400-MW55D-0615

Operator ID: bergerb

ALS Bottle#: 14

Worklist Smp#: 16

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

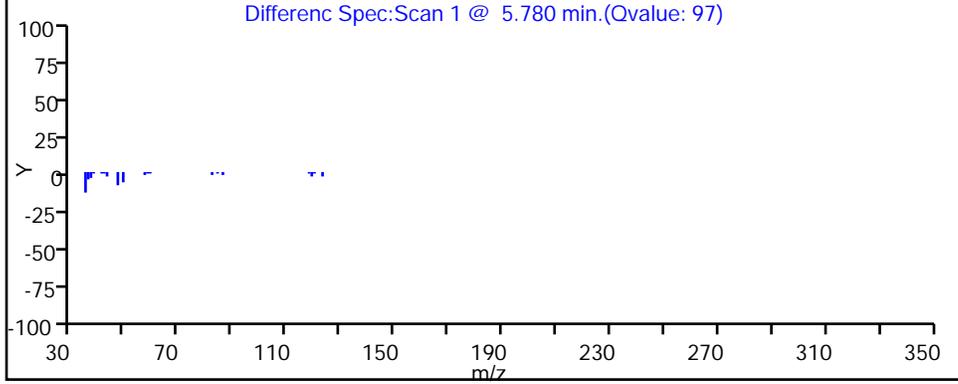
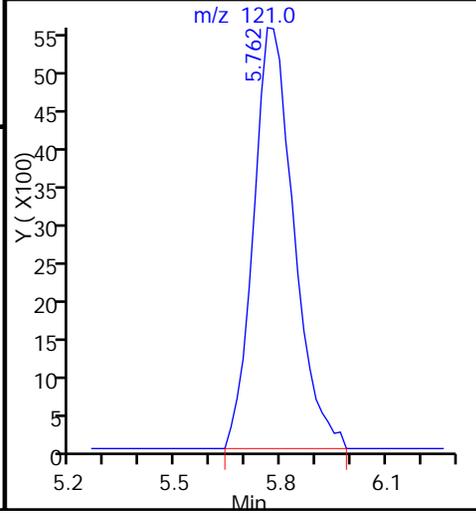
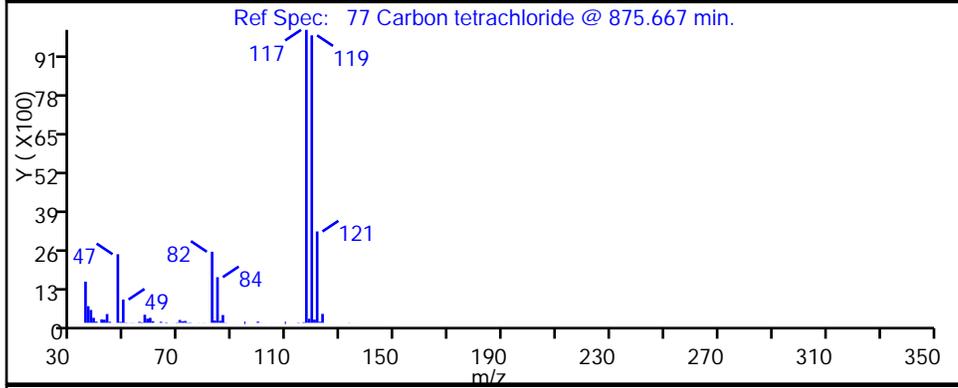
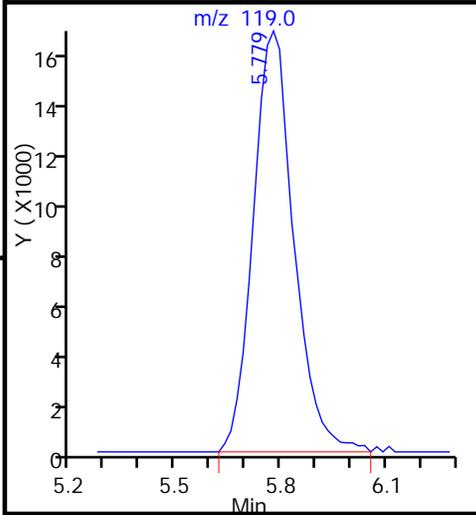
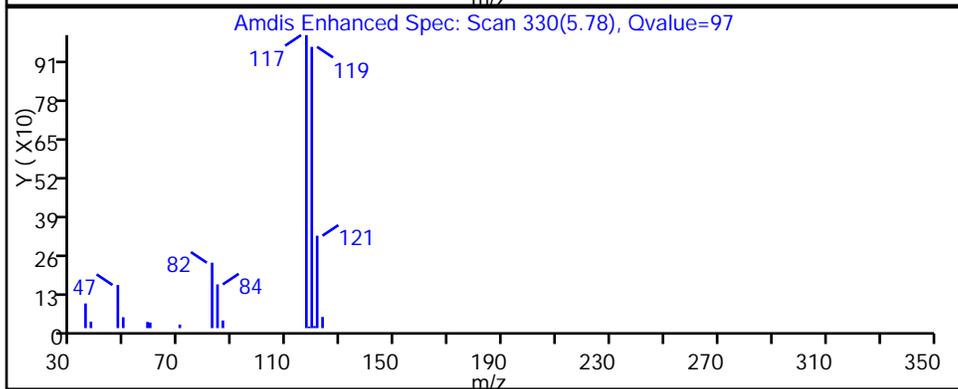
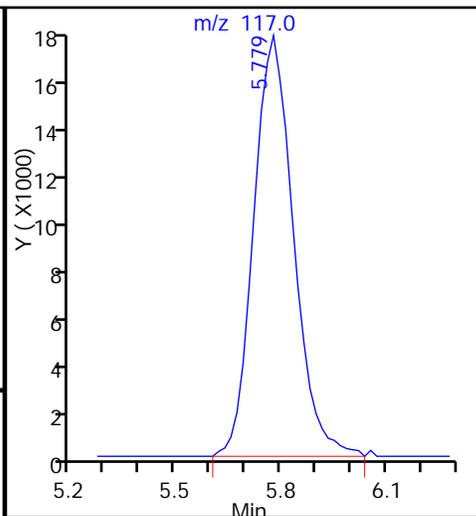
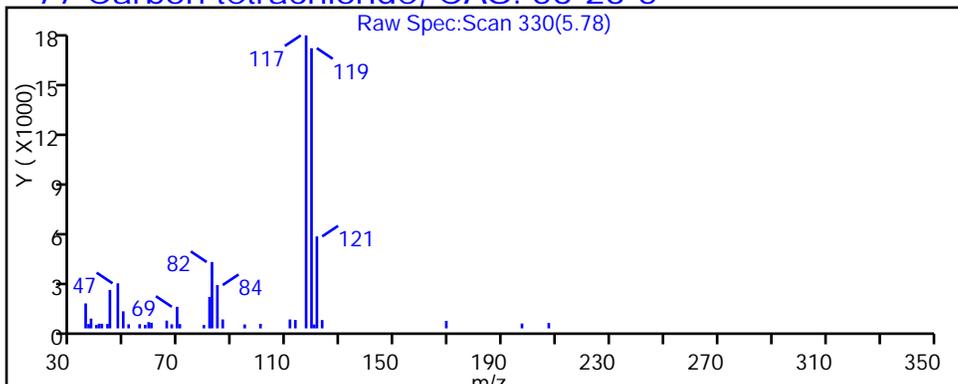
Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Detector: MS SCAN

77 Carbon tetrachloride, CAS: 56-23-5



TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8598.D

Injection Date: 09-Jun-2015 22:50:30

Instrument ID: VMS_Z

Lims ID: 280-70279-H-6

Lab Sample ID: 280-70279-6

Client ID: 54400-MW55D-0615

Operator ID: bergerb

ALS Bottle#: 14

Worklist Smp#: 16

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

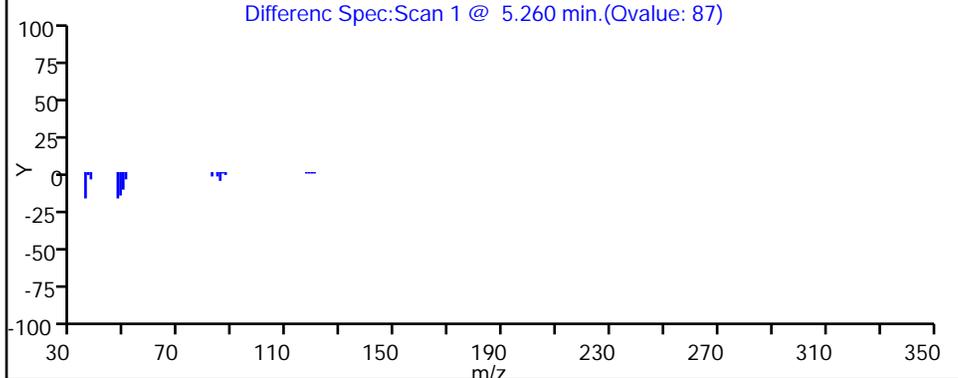
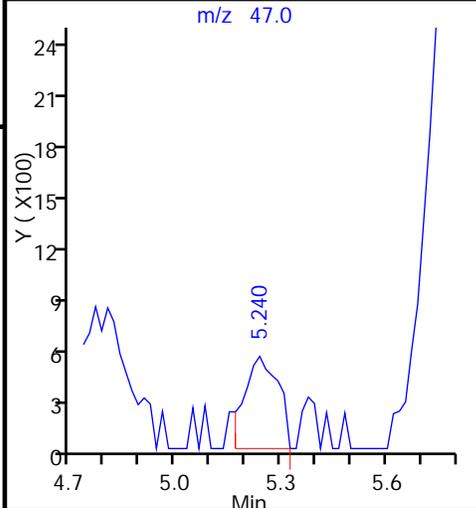
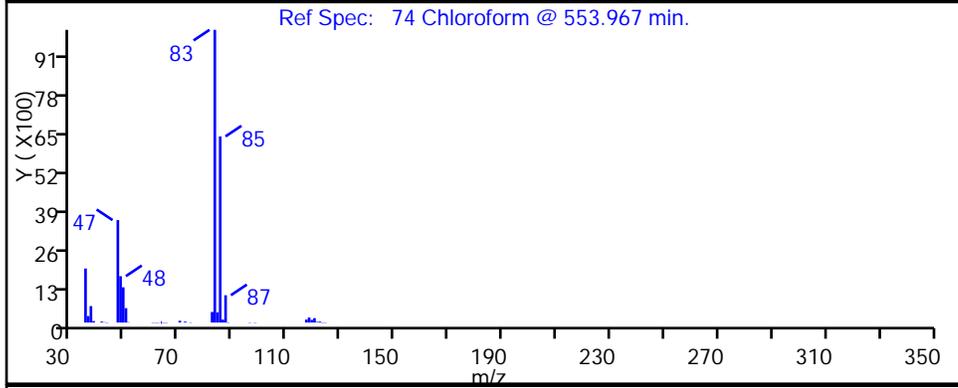
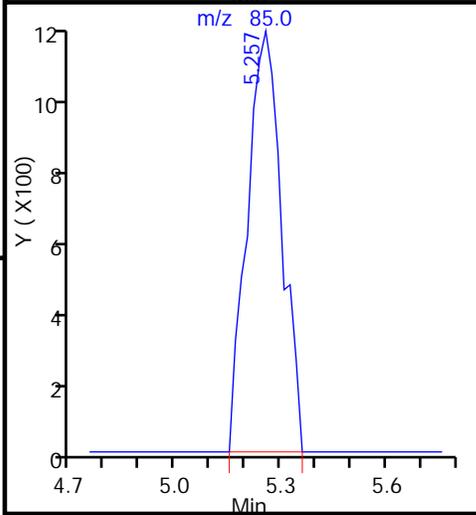
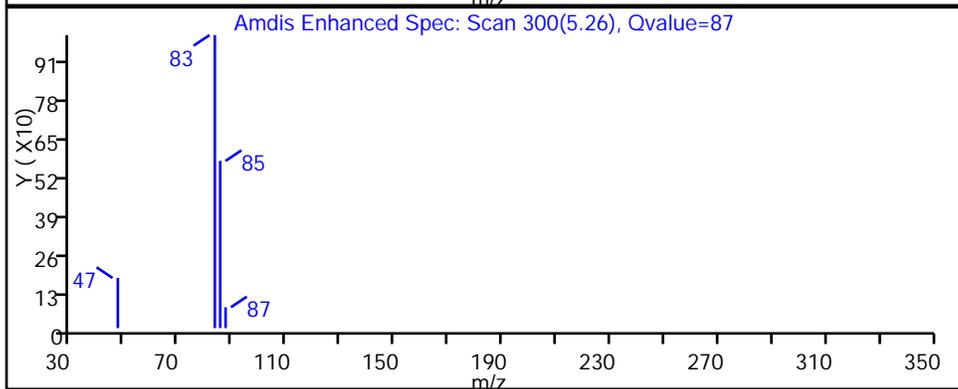
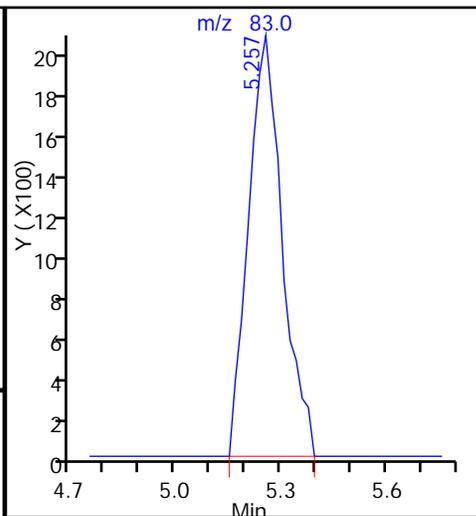
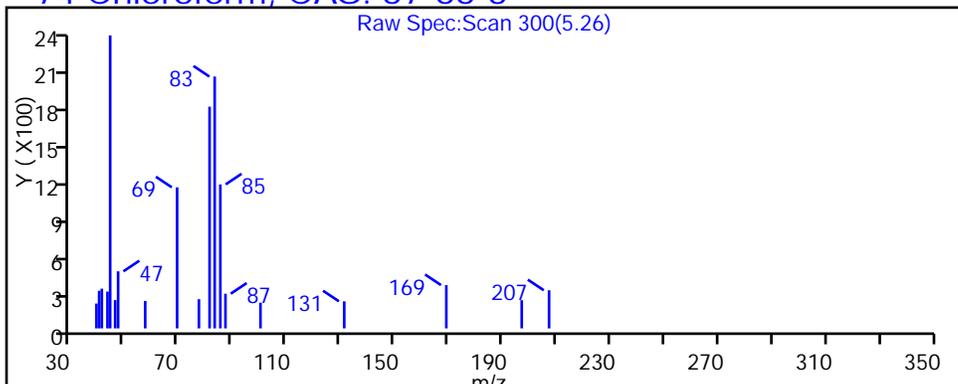
Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Detector: MS SCAN

74 Chloroform, CAS: 67-66-3



TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8598.D

Injection Date: 09-Jun-2015 22:50:30

Instrument ID: VMS_Z

Lims ID: 280-70279-H-6

Lab Sample ID: 280-70279-6

Client ID: 54400-MW55D-0615

Operator ID: bergerb

ALS Bottle#: 14

Worklist Smp#: 16

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

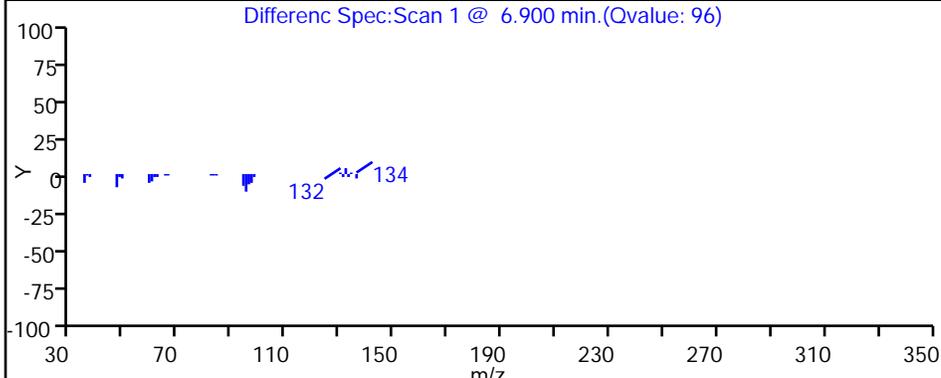
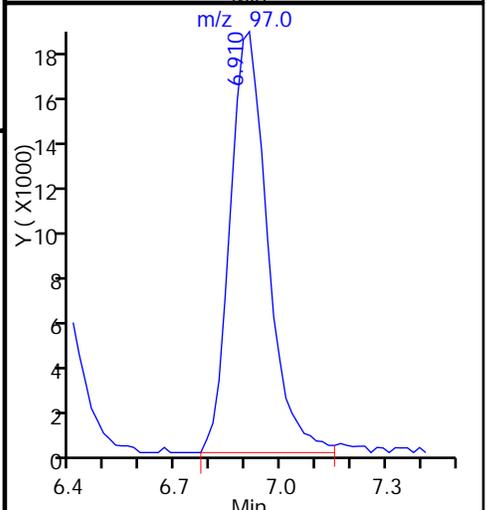
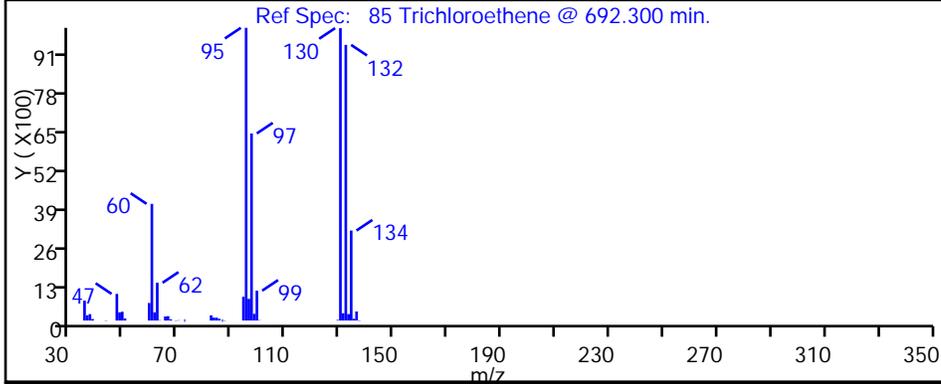
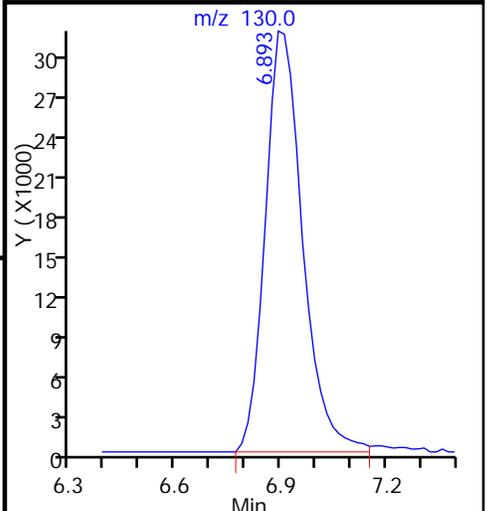
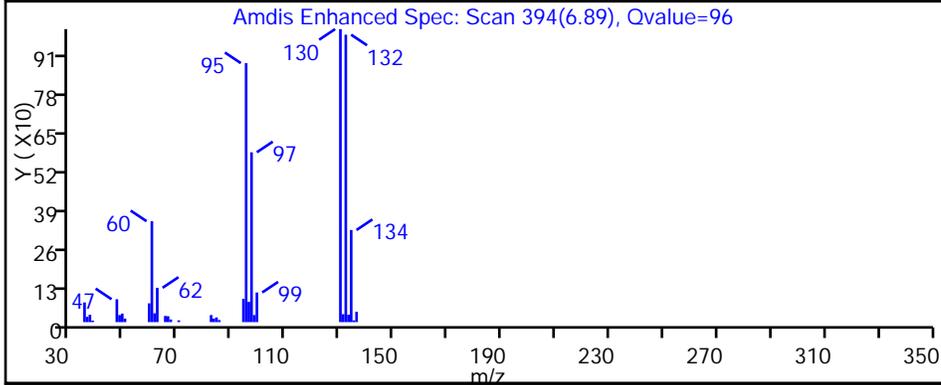
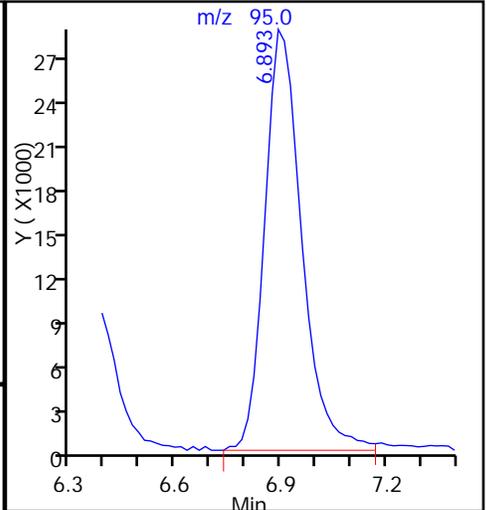
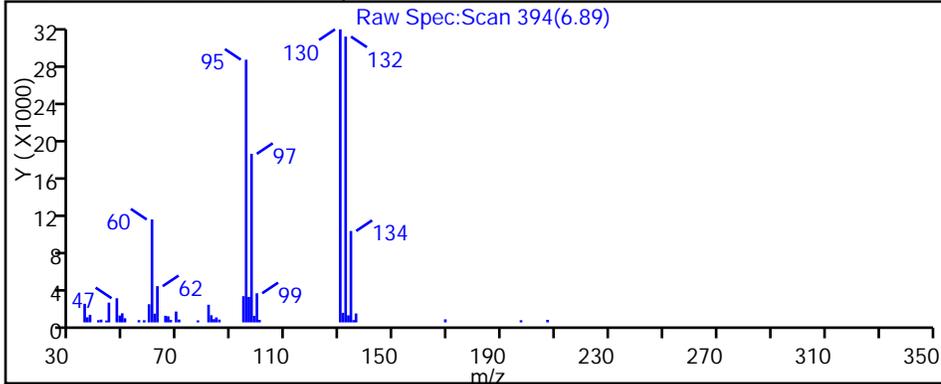
Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Detector: MS SCAN

85 Trichloroethene, CAS: 79-01-6



FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-70279-1 Analy Batch No.: 279265

SDG No.: _____

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53 (mm)) Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2015 00:18 Calibration End Date: 05/28/2015 05:10 Calibration ID: 22417

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-279265/9	H2949.D
Level 2	IC 280-279265/10	H2950.D
Level 3	IC 280-279265/16	H2957.D
Level 4	IC 280-279265/11	H2951.D
Level 5	IC 280-279265/17	H2958.D
Level 6	IC 280-279265/12	H2952.D
Level 7	IC 280-279265/18	H2959.D
Level 8	IC 280-279265/13	H2953.D
Level 9	ICIS 280-279265/19	H2960.D
Level 10	IC 280-279265/14	H2954.D
Level 11	IC 280-279265/20	H2961.D
Level 12	IC 280-279265/15	H2955.D
Level 13	IC 280-279265/21	H2962.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10												
Dichlorodifluoromethane	0.6723 0.6000	0.4976 0.6115	0.5781	0.3764	0.6182	Lin1	-0.05 9	0.608 3						0.9970			0.9900
Chloromethane	0.4489 0.3934	0.3613 0.3949	0.3985	0.3243	0.4034	Ave		0.389 2		0.1000	9.9		15.0				
Vinyl chloride	0.4524 0.3876	0.3441 0.3996	0.3885	0.2908	0.4015	Ave		0.380 7			13.3		30.0				
Bromomethane	++++ 0.3222	0.3214 0.3209	0.3362	0.2639	0.3308	Ave		0.315 9			8.3		15.0				
Chloroethane	++++ 0.2504	0.2352 0.2250	0.2483	0.1895	0.2400	Ave		0.231 4			9.7		15.0				
Dichlorofluoromethane	++++ 0.8860	0.7676 0.8901	0.9035	0.6763	0.9126	Ave		0.839 4			11.4		15.0				
Trichlorofluoromethane	0.8693 0.7802	0.6684 0.7941	0.7970	0.5425	0.8047	Ave		0.750 9			14.6		15.0				

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-70279-1 Analy Batch No.: 279265

SDG No.: _____

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53 (mm)) Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2015 00:18 Calibration End Date: 05/28/2015 05:10 Calibration ID: 22417

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10												
Ethanol		0.0007	++++ 0.0007	0.0008	0.0010	Lin2	0.030 7	0.000 7						0.9900		0.9900	
Ethyl ether	0.2003 0.2058	0.2017 0.1812	0.2025	0.2004	0.1964	Ave		0.198 3			4.1		15.0				
Acrolein	++++ 0.0143	0.0144 0.0128	0.0133	0.0132	0.0139	Ave		0.013 7			4.7		15.0				
1,1-Dichloroethene	0.3671 0.3865	0.3926 0.3668	0.3796	0.3543	0.3663	Ave		0.373 3			3.6		30.0				
1,1,2-Trichloro-1,2,2-trifluoroethane	0.4658 0.5324	0.5230 0.5195	0.5231	0.4862	0.5115	Ave		0.508 8			4.7		15.0				
Acetone	++++ 0.0379	0.0492 0.0323	0.0392	0.0382	0.0368	Ave		0.038 9			14.3		15.0				
Isopropyl alcohol		0.0056	0.0119 0.0057	0.0071	0.0057	Lin1	0.041 1	0.005 7						0.9910		0.9900	
Iodomethane	0.8562 0.8522	0.8710 0.8233	0.8529	0.8008	0.8246	Ave		0.840 1			2.9		15.0				
Carbon disulfide	1.6352 1.4559	1.4538 1.3951	1.4345	1.3036	1.3982	Ave		1.439 5			7.0		15.0				
Acetonitrile		0.0080	0.0146 0.0071	0.0073	0.0087	Lin1	0.077 0	0.006 9						0.9990		0.9900	
3-Chloro-1-propene	0.8931 0.8831	0.9161 0.8251	0.8649	0.8389	0.8450	Ave		0.866 6			3.8		15.0				
Methyl acetate	0.1100 0.1258	0.1397 0.1181	0.1340	0.1233	0.1305	Ave		0.125 9			7.9		15.0				

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-70279-1 Analy Batch No.: 279265

SDG No.: _____

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53 (mm)) Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2015 00:18 Calibration End Date: 05/28/2015 05:10 Calibration ID: 22417

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10												
Methylene Chloride	0.8126 0.3553	0.4695 0.3052	0.3418	0.3828	0.3180	Lin2	0.149 3	0.315 9						0.9990		0.9900	
tert-Butyl alcohol	++++ 1.2969	1.3926 1.1641	1.2128	1.7105	1.1830	Lin1	5.316 4	1.162 7						0.9980		0.9900	
Acrylonitrile	0.0302 0.0323	0.0334 0.0318	0.0338	0.0328	0.0337	Ave		0.032 6			4.0		15.0				
trans-1,2-Dichloroethene	0.4404 0.4346	0.4148 0.4140	0.4140	0.4093	0.4127	Ave		0.420 0			2.9		15.0				
Methyl tert-butyl ether	0.7576 0.7187	0.7327 0.6516	0.7318	0.6878	0.7009	Ave		0.711 6			4.9		15.0				
Hexane	3.0006 3.4517	3.3718 3.6328	3.5541	3.0644	3.3922	Ave		3.352 5			7.1		15.0				
1,1-Dichloroethane	0.9471 0.8848	0.9425 0.8645	0.8754	0.8306	0.8618	Ave		0.886 7		0.1000	4.9		15.0				
Vinyl acetate	0.5168 0.5940	0.5011 0.5493	0.5655	0.5143	0.6027	Ave		0.549 1			7.3		15.0				
Isopropyl ether		0.2877	0.3030 0.2790	0.2930	0.2907	Ave		0.289 4			2.9		15.0				
2-Chloro-1,3-butadiene		0.6685	0.7001 0.6427	0.6438	0.6495	Ave		0.659 4			3.3		15.0				
Tert-butyl ethyl ether		1.1257	1.3981 1.0854	1.1483	1.1926	Ave		1.173 3			10.0		15.0				
cis-1,2-Dichloroethene	0.4228 0.4250	0.4367 0.4157	0.4329	0.4097	0.4198	Ave		0.423 2			2.2		15.0				

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver

Job No.: 280-70279-1

Analy Batch No.: 279265

SDG No.: _____

Instrument ID: VMS_H

GC Column: DB-624 (75. ID: 0.53 (mm))

Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2015 00:18

Calibration End Date: 05/28/2015 05:10

Calibration ID: 22417

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10												
2-Butanone (MEK)	++++ 0.0702	0.0715 0.0713	0.0799	0.0572	0.0801	Ave		0.071 7			11.7		15.0				
2,2-Dichloropropane	++++ 0.8679	1.3131 0.7323	0.7976	0.9827	0.7466	Lin2	0.571 1	0.730 6					0.9990			0.9900	
Ethyl acetate		0.1515 0.1556	0.1738 0.1551	0.1740	0.1417	Ave		0.158 6			8.1		15.0				
Propionitrile		0.0111 0.0111	0.0119 0.0111	0.0118	0.0108	Ave		0.011 3			4.0		15.0				
sec-Butyl Alcohol	2.2045 1.6075	1.9139 1.6511	1.6589	1.7994	1.6941	Ave		1.789 9			11.8		15.0				
Methacrylonitrile		0.0966 0.0985	0.1009 0.0964	0.1044	0.0977	Ave		0.099 1			3.1		15.0				
Bromochloromethane	0.1801 0.1879	0.1777 0.1849	0.1923	0.1861	0.1908	Ave		0.185 7			2.9		15.0				
Tetrahydrofuran	++++ 0.0504	0.0556 0.0481	0.0538	0.0499	0.0519	Ave		0.051 6			5.3		15.0				
Chloroform	0.8073 0.8459	0.8850 0.8014	0.8295	0.8135	0.8140	Ave		0.828 1			3.5		30.0				
1,1,1-Trichloroethane	0.7686 0.8114	0.8150 0.7980	0.8042	0.7482	0.7899	Ave		0.790 8			3.1		15.0				
Cyclohexane	0.8385 0.8987	0.8786 0.8804	0.8952	0.8351	0.8806	Ave		0.872 4			2.9		15.0				
1,1-Dichloropropene	0.7960 0.7165	0.7245 0.6834	0.6931	0.6655	0.6830	Ave		0.708 9			6.1		15.0				

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-70279-1 Analy Batch No.: 279265

SDG No.: _____

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53 (mm)) Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2015 00:18 Calibration End Date: 05/28/2015 05:10 Calibration ID: 22417

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10												
	LVL 11	LVL 12	LVL 13														
Carbon tetrachloride	0.6918 0.7587	0.7452 0.7592	0.7484	0.6952	0.7478	Ave		0.735 2			3.9		15.0				
Isobutyl alcohol	++++ 0.6033	0.6782 0.6080	0.6248	0.5861	0.6614	Ave		0.627 0			5.7		15.0				
Benzene	1.2801 1.3345	1.2923 1.3211	1.3291	1.2793	1.3300	Ave		1.309 5			1.9		15.0				
1,2-Dichloroethane	++++ 0.4011	0.4104 0.3699	0.4019	0.3966	0.3938	Ave		0.395 6			3.5		15.0				
Tert-amyl methyl ether		0.9239	0.9842 0.8734	0.9553	0.9163	Ave		0.923 4			4.5		15.0				
n-Butanol		0.0030	0.0030	0.0036	0.0031	Ave		0.003 3			9.0		15.0				
Trichloroethene	0.5069 0.5523	0.5289 0.5462	0.5490	0.5005	0.5435	Ave		0.532 5			4.0		15.0				
2-Pentanone	0.2203 0.1925	0.1928 0.1834	0.2110	0.1887	0.2039	Ave		0.198 9			6.7		15.0				
Methylcyclohexane	0.6575 0.8057	0.8259 0.8011	0.8100	0.7402	0.8003	Ave		0.777 2			7.6		15.0				
1,2-Dichloropropane	0.5032 0.5220	0.5643 0.4938	0.5226	0.5400	0.5158	Ave		0.523 1			4.5		30.0				
Methyl methacrylate		0.0526	0.0659 0.0501	0.0535	0.0590	Ave		0.055 4			10.8		15.0				
Dibromomethane	0.2801 0.2602	0.2660 0.2402	0.2617	0.2613	0.2555	Ave		0.260 7			4.6		15.0				

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-70279-1 Analy Batch No.: 279265

SDG No.: _____

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53 (mm)) Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2015 00:18 Calibration End Date: 05/28/2015 05:10 Calibration ID: 22417

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10												
1,4-Dioxane	++++ 0.0014	0.0007 0.0015	0.0015	0.0010	0.0017	Lin2	-0.01 9	0.001 6						0.9930		0.9900	
Bromodichloromethane	0.7144 0.7636	0.7605 0.7600	0.7933	0.7698	0.7673	Ave		0.761 3			3.1		15.0				
2-Nitropropane		0.0392	0.0412	0.0387	0.0388	Ave		0.040 9			5.8		15.0				
2-Chloroethyl vinyl ether	++++ 0.0912	0.0991 0.1032	0.0880	0.0734	0.1061	Ave		0.093 5			12.9		15.0				
cis-1,3-Dichloropropene	2.6750 3.0354	2.9221 2.9872	3.0904	2.9018	3.0016	Ave		2.944 8			4.6		15.0				
4-Methyl-2-pentanone (MIBK)	0.3442 0.2584	0.2140 0.2551	0.2956	0.1914	0.2850	Lin1	-0.01 5	0.266 2					0.9940		0.9900		
Toluene	1.5176 1.5073	1.5648 1.4821	1.4939	1.4427	1.4985	Ave		1.501 0			2.5		30.0				
trans-1,3-Dichloropropene	++++ 0.4928	0.4849 0.4522	0.4890	0.4764	0.4809	Ave		0.479 4			3.0		15.0				
Ethyl methacrylate	1.4143 1.8201	2.0173 1.7673	1.9026	1.8930	1.8399	Ave		1.807 8			10.5		15.0				
1,1,2-Trichloroethane	++++ 0.3015	0.3418 0.2655	0.2927	0.3160	0.2872	Ave		0.300 8			8.7		15.0				
Tetrachloroethene	1.7265 2.0994	2.0522 2.2172	2.1402	1.9269	2.0726	Ave		2.033 6			8.0		15.0				
1,3-Dichloropropane	2.0988 2.2579	2.4754 2.2014	2.3859	2.3518	2.2730	Ave		2.292 0			5.4		15.0				

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-70279-1 Analy Batch No.: 279265

SDG No.: _____

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53 (mm)) Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2015 00:18 Calibration End Date: 05/28/2015 05:10 Calibration ID: 22417

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10												
	LVL 11	LVL 12	LVL 13														
2-Hexanone	0.8284 0.7622	0.5682 0.8273	0.8838	0.5759	0.8677	Lin1	-0.44 1	0.840 8						0.9970		0.9900	
Chlorodibromomethane	2.0740 2.1696	2.2728 2.2722	2.2949	2.2269	2.3073	Ave		2.231 1			3.7		15.0				
1,2-Dibromoethane	1.4087 1.5822	1.5346 1.6100	1.6757	1.5748	1.6216	Ave		1.572 5			5.4		15.0				
1-Chlorohexane	3.5084 3.4695	3.5102 3.5732	3.4262	3.2136	3.3481	Ave		3.435 6			3.5		15.0				
Chlorobenzene	4.2365 4.5461	4.4956 4.6390	4.6525	4.3619	4.4491	Ave		4.483 0		0.3000	3.3		15.0				
1,1,1,2-Tetrachloroethane	1.9485 2.2117	2.1740 2.2529	2.2682	2.0985	2.1970	Ave		2.164 4			5.1		15.0				
Ethylbenzene	2.0226 2.3517	2.2833 2.4001	2.4311	2.2308	2.2784	Ave		2.285 4			5.9		30.0				
m-Xylene & p-Xylene	2.7785 3.1931	3.2773 3.2936	3.2573	2.7671	3.1810	Ave		3.106 8			7.5		15.0				
o-Xylene	2.3533 2.7913	2.7308 2.8656	2.8595	2.7161	2.7643	Ave		2.725 8			6.4		15.0				
Styrene	3.5913 4.5450	4.6319 4.6297	4.6479	4.3307	4.4769	Ave		4.407 6			8.6		15.0				
Bromoform	0.9867 1.2372	1.1494 1.2669	1.3191	1.1764	1.2908	Ave		1.203 8		0.1000	9.4		15.0				
Isopropylbenzene	5.4727 5.3868	5.6583 5.2474	5.4075	5.1944	5.1269	Ave		5.356 3			3.4		15.0				

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver

Job No.: 280-70279-1

Analy Batch No.: 279265

SDG No.: _____

Instrument ID: VMS_H

GC Column: DB-624 (75. ID: 0.53 (mm))

Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2015 00:18

Calibration End Date: 05/28/2015 05:10

Calibration ID: 22417

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10												
	LVL 11	LVL 12	LVL 13														
cis-1,4-Dichloro-2-butene	0.2175	0.2326	0.1743 0.2075	0.2412	0.2477	Ave		0.220 1			12.2		15.0				
Cyclohexanone	0.0349 0.0259	0.0206 0.0268	0.0302	0.0202	0.0297	Lin1	-0.04 8	0.027 8						0.9950		0.9900	
Bromobenzene	1.1416 1.2551	1.2656 1.2243	1.2789	1.2435	1.2364	Ave		1.235 1			3.6		15.0				
1,1,2,2-Tetrachloroethane	++++ 1.0798	1.2715 0.9706	1.1278	1.1702	1.0692	Ave		1.114 8		0.3000	9.1		15.0				
1,2,3-Trichloropropane	0.3027 0.2509	0.2823 0.2211	0.2561	0.2746	0.2371	Ave		0.260 7			10.7		15.0				
trans-1,4-Dichloro-2-butene	++++ 0.2927	0.3626 0.2477	0.2773	0.3113	0.2638	Ave		0.292 6			14.0		15.0				
N-Propylbenzene	1.3235 1.3387	1.3607 1.2774	1.3273	1.3060	1.2435	Ave		1.311 0			3.0		15.0				
2-Chlorotoluene	1.0409 0.9993	1.0630 0.9879	1.0298	1.0278	0.9625	Ave		1.015 9			3.4		15.0				
1,3,5-Trimethylbenzene	4.3251 4.0485	4.1323 3.9378	4.0787	3.9955	3.8462	Ave		4.052 0			3.8		15.0				
4-Chlorotoluene	1.2606 1.2821	1.3873 1.3034	1.3287	1.3303	1.2985	Ave		1.313 0			3.1		15.0				
tert-Butylbenzene	4.6423 4.4055	4.6148 4.2623	4.4069	4.2619	4.1731	Ave		4.395 2			4.1		15.0				
1,2,4-Trimethylbenzene	4.0915 3.8496	4.0242 3.6791	3.8806	3.7664	3.6503	Ave		3.848 8			4.3		15.0				

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-70279-1 Analy Batch No.: 279265

SDG No.: _____

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53 (mm)) Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2015 00:18 Calibration End Date: 05/28/2015 05:10 Calibration ID: 22417

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10												
	LVL 11	LVL 12	LVL 13														
sec-Butylbenzene	1.1536 1.1749	1.1761 1.1523	1.1754	1.1802	1.1084	Ave		1.160 1			2.2		15.0				
1,3-Dichlorobenzene	1.9475 1.8356	1.9603 1.8624	1.9028	1.8447	1.7807	Ave		1.876 3			3.4		15.0				
p-Isopropyltoluene	4.7453 5.0878	5.1707 4.9754	5.1332	4.9774	4.8357	Ave		4.989 4			3.1		15.0				
1,4-Dichlorobenzene	2.8174 2.9420	2.9928 2.8150	2.8873	2.9475	2.8860	Ave		2.898 3			2.3		15.0				
1,2,3-Trimethylbenzene		3.3584	3.5005 3.2578	3.2562	3.3184	Ave		3.343 7			2.7		15.0				
n-Butylbenzene	5.5526 5.2917	5.3840 5.1507	5.2530	5.0266	5.0251	Ave		5.240 5			3.7		15.0				
1,2-Dichlorobenzene	1.8994 1.9763	2.0125 1.9437	2.0142	1.9990	1.9400	Ave		1.969 3			2.2		15.0				
1,2-Dibromo-3-Chloropropane	0.1626 0.1845	0.1878 0.1780	0.1967	0.1877	0.1896	Ave		0.183 9			5.9		15.0				
1,2,4-Trichlorobenzene	1.1294 1.3379	1.3450 1.3612	1.3818	1.3498	1.3546	Ave		1.322 8			6.5		15.0				
Hexachlorobutadiene	1.3053 1.3864	1.4295 1.3957	1.4103	1.3888	1.3363	Ave		1.378 9			3.1		15.0				
Naphthalene	1.4838 1.4704	1.5211 1.4722	1.5652	1.4986	1.5272	Ave		1.505 5			2.3		15.0				
1,2,3-Trichlorobenzene	0.9921 1.0521	1.0799 1.0578	1.0743	0.9593	1.0776	Ave		1.041 9			4.5		15.0				

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-70279-1 Analy Batch No.: 279265

SDG No.: _____

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53 (mm)) Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2015 00:18 Calibration End Date: 05/28/2015 05:10 Calibration ID: 22417

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10												
Dibromofluoromethane (Surr)	0.5930	0.6035	0.7139 0.5948	0.6162	0.6665	Ave	0.631 3				7.7		15.0				
1,2-Dichloroethane-d4 (Surr)	0.3283	0.3380	0.3801 0.3301	0.3483	0.3737	Ave	0.349 7				6.4		15.0				
Toluene-d8 (Surr)	6.5381	5.8804	6.4381 5.6946	5.7403	6.2987	Ave	6.098 4				6.1		15.0				
4-Bromofluorobenzene (Surr)	2.0194	2.0522	2.5577 1.9707	1.9809	2.2556	Ave	2.139 4				10.7		15.0				

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-70279-1 Analy Batch No.: 279265

SDG No.: _____

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53 (mm)) Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2015 00:18 Calibration End Date: 05/28/2015 05:10 Calibration ID: 22417

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-279265/9	H2949.D
Level 2	IC 280-279265/10	H2950.D
Level 3	IC 280-279265/16	H2957.D
Level 4	IC 280-279265/11	H2951.D
Level 5	IC 280-279265/17	H2958.D
Level 6	IC 280-279265/12	H2952.D
Level 7	IC 280-279265/18	H2959.D
Level 8	IC 280-279265/13	H2953.D
Level 9	ICIS 280-279265/19	H2960.D
Level 10	IC 280-279265/14	H2954.D
Level 11	IC 280-279265/20	H2961.D
Level 12	IC 280-279265/15	H2955.D
Level 13	IC 280-279265/21	H2962.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7	LVL 8	LVL 9	LVL 10	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10
Dichlorodifluoromethane	FB	Lin1	17035	42175		61856		0.300	1.00		2.00	
			247178		490322		1582945		5.00		10.0		30.0
Chloromethane	FB	Ave	11373	3195464		53286		0.300	60.0		2.00	
			162089	2063538	338017		1032956		5.00	1.00	10.0		30.0
Vinyl chloride	FB	Ave	11464	29166		47784		0.300	60.0		2.00	
			159681	2088314	329568		1028076		5.00	1.00	10.0		30.0
Bromomethane	FB	Ave	++++	27242		43358		++++	60.0		2.00	
			132730	1677127	285208		847148		5.00	1.00	10.0		30.0
Chloroethane	FB	Ave	++++	19936		31142		++++	60.0		2.00	
			103163	1175653	210596		614520		5.00	1.00	10.0		30.0
Dichlorofluoromethane	FB	Ave	++++	65058		111136		++++	60.0		2.00	
			365019	4651419	766394		2336784		5.00	1.00	10.0		30.0
Trichlorofluoromethane	FB	Ave	22025	56652		89150		0.300	60.0		2.00	
			321455	4149850	675996		2060386		5.00	1.00	10.0		30.0
Ethanol	FB	Lin2		15621	++++		9004			++++		100
			92015	200333	33859		1500		250	3000	500	

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-70279-1 Analy Batch No.: 279265

SDG No.: _____

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53 (mm)) Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2015 00:18 Calibration End Date: 05/28/2015 05:10 Calibration ID: 22417

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7	LVL 8	LVL 9	LVL 10	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10
			LVL 11	LVL 12	LVL 13		LVL 11	LVL 12	LVL 13			
Ethyl ether	FB	Ave	5076 84807	17097 946871	171739	32923	502993	0.300 5.00	1.00 60.0	10.0	2.00	30.0
Acrolein	FB	Ave	++++ 59073	12221 670949	113181	21672	354662	++++ 50.0	10.00 600	100.0	20.0	300
1,1-Dichloroethene	FB	Ave	9301 159253	33271 1917053	321941	58222	937902	0.300 5.00	1.00 60.0	10.0	2.00	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	11802 219337	44325 2715137	443684	79903	1309750	0.300 5.00	1.00 60.0	10.0	2.00	30.0
Acetone	FB	Ave	++++ 62422	16671 674850	132884	25083	376529	++++ 20.0	4.00 240	40.0	8.00	120
Isopropyl alcohol	FB	Lin1		24803	10503		10028		50.0	10.0		20.0
			156601		312090		62543	300		600	100	
Iodomethane	FB	Ave	21695 351110	73821 4302574	723408	131594	2111383	0.300 5.00	1.00 60.0	10.0	2.00	30.0
Carbon disulfide	FB	Ave	41433 599818	123216 7290483	1216758	214216	3580245	0.300 5.00	1.00 60.0	10.0	2.00	30.0
Acetonitrile	FB	Lin1		43880	16071		19392		62.5	12.5		25.0
			239466		480531		81258	375		750	125	
3-Chloro-1-propene	FB	Ave	22629 363829	77645 4311947	733581	137857	2163538	0.300 5.00	1.00 60.0	10.0	2.00	30.0
Methyl acetate	FB	Ave	13933 259179	59188 3085396	568374	101327	1670946	1.50 25.0	5.00 300	50.0	10.0	150
Methylene Chloride	FB	Lin2	20589 146368	39793 1594879	289949	62909	814145	0.300 5.00	1.00 60.0	10.0	2.00	30.0
tert-Butyl alcohol	TBA	Lin1	++++ 50634	10757 530360	103361	25764	300590	++++ 50.0	10.0 600	100	20.0	300

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-70279-1 Analy Batch No.: 279265

SDG No.: _____

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53 (mm)) Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2015 00:18 Calibration End Date: 05/28/2015 05:10 Calibration ID: 22417

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6 LVL 11	LVL 2 LVL 7 LVL 12	LVL 3 LVL 8 LVL 13	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6 LVL 11	LVL 2 LVL 7 LVL 12	LVL 3 LVL 8 LVL 13	LVL 4 LVL 9	LVL 5 LVL 10
Acrylonitrile	FB	Ave	7644 132956	28348 1661461	286517	53920	863563	3.00 50.0	10.0 600	100	20.0	300
trans-1,2-Dichloroethene	FB	Ave	11159 179063	35154 2163767	351195	67262	1056693	0.300 5.00	1.00 60.0	10.0	2.00	30.0
Methyl tert-butyl ether	FB	Ave	19196 296103	62101 3405326	620688	113032	1794782	0.300 5.00	1.00 60.0	10.0	2.00	30.0
Hexane	CBZ	Ave	18384 314081	64190 4048497	656745	113407	1936877	0.300 5.00	1.00 60.0	10.0	2.00	30.0
1,1-Dichloroethane	FB	Ave	23998 364528	79883 4517987	742521	136484	2206706	0.300 5.00	1.00 60.0	10.0	2.00	30.0
Vinyl acetate	FB	Ave	26188 489475	84948 5740935	959261	169021	3086662	0.600 10.0	2.00 120	20.0	4.00	60.0
Isopropyl ether	FB	Ave	949648	158619	33342 1898580	324780	64479	37.5	6.25	1.25 75.0	12.5	2.50
2-Chloro-1,3-butadiene	FB	Ave	1750155	294842	61627 3499683	570915	115265	30.0	5.00	1.00 60.0	10.0	2.00
Tert-butyl ethyl ether	FB	Ave	3659958	620642	153824 7387205	1272766	264567	37.5	6.25	1.25 75.0	12.5	2.50
cis-1,2-Dichloroethene	FB	Ave	10712 175089	37013 2172564	367183	67321	1074834	0.300 5.00	1.00 60.0	10.0	2.00	30.0
2-Butanone (MEK)	FB	Ave	++++ 115653	24233 1491424	271060	37612	820646	++++ 20.0	4.00 240	40.0	8.00	120
2,2-Dichloropropane	FB	Lin2	++++ 357591	111289 3826816	676578	161477	1911674	++++ 5.00	1.00 60.0	10.0	2.00	30.0
Ethyl acetate	FB	Ave	835914	133601	30591 1689137	308502	50291	60.0	10.0	2.00 120	20.0	4.00

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-70279-1 Analy Batch No.: 279265

SDG No.: _____

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53 (mm)) Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2015 00:18 Calibration End Date: 05/28/2015 05:10 Calibration ID: 22417

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 2	LVL 3	LVL 4	LVL 5	
			LVL 6	LVL 7	LVL 8	LVL 9	LVL 10	LVL 7	LVL 8	LVL 9	LVL 10	
			LVL 11	LVL 12	LVL 13		LVL 11	LVL 12	LVL 13			
Propionitrile	FB	Ave		61262	13113	130541	23893		62.5	12.5	125	25.0
			374048		752658			375		750		
sec-Butyl Alcohol	TBA	Ave	15358	44351	424147	81308	1291377	9.00	30.0	300	60.0	900
			188288	2256681				150	1800			
Methacrylonitrile	FB	Ave		426154	88804	925891	173321		50.0	10.0	100	20.0
			2645878		5249270			300		600		
Bromochloromethane	FB	Ave	4564	15065	163111	30589	488660	0.300	1.00	10.0	2.00	30.0
			77430	966337				5.00	60.0			
Tetrahydrofuran	FB	Ave	++++	9425	91342	16390	265724	++++	2.00	20.0	4.00	60.0
			41570	502514				10.0	120			
Chloroform	FB	Ave	20454	75009	703605	133676	2084195	0.300	1.00	10.0	2.00	30.0
			348497	4188258				5.00	60.0			
1,1,1-Trichloroethane	FB	Ave	19475	69076	682150	122948	2022539	0.300	1.00	10.0	2.00	30.0
			334275	4170262				5.00	60.0			
Cyclohexane	FB	Ave	21245	74464	759284	137225	2254936	0.300	1.00	10.0	2.00	30.0
			370277	4600736				5.00	60.0			
1,1-Dichloropropene	FB	Ave	20169	61407	587910	109356	1748830	0.300	1.00	10.0	2.00	30.0
			295185	3571391				5.00	60.0			
Carbon tetrachloride	FB	Ave	17528	63160	634790	114248	1914881	0.300	1.00	10.0	2.00	30.0
			312599	3967597				5.00	60.0			
Isobutyl alcohol	TBA	Ave	++++	13096	133112	22070	420168	++++	25.0	250	50.0	750
			58888	692521				125	1500			
Benzene	FB	Ave	32434	109532	1127346	210215	3405649	0.300	1.00	10.0	2.00	30.0
			549811	6903972				5.00	60.0			
1,2-Dichloroethane	FB	Ave	++++	34787	340868	65169	1008279	++++	1.00	10.0	2.00	30.0
			165237	1932916				5.00	60.0			

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-70279-1 Analy Batch No.: 279265

SDG No.: _____

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53 (mm)) Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2015 00:18 Calibration End Date: 05/28/2015 05:10 Calibration ID: 22417

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10
			LVL 6	LVL 7	LVL 8	LVL 9	LVL 10	LVL 11	LVL 12	LVL 13	LVL 9	LVL 10
Tert-amyl methyl ether	FB	Ave		509379	108283	1058840	203262		6.25	1.25	12.5	2.50
			2980183		5944725			37.5		75.0		
n-Butanol	FB	Ave		32899	6625	80688	13826		125	25.0	250	50.0
			237384		479232			750		1500		
Trichloroethene	FB	Ave	12844	44827		82244		0.300	1.00		2.00	
			227548		465659		1391651	5.00		10.0		30.0
				2854202					60.0			
2-Pentanone	FB	Ave	22323	65366		124028		1.20	4.00		8.00	
			317235		715858		2088712	20.0		40.0		120
				3833019					240			
Methylcyclohexane	FB	Ave	16660	69997		121641		0.300	1.00		2.00	
			331927		687055		2049189	5.00		10.0		30.0
				4186466					60.0			
1,2-Dichloropropane	FB	Ave	12750	47827		88743		0.300	1.00		2.00	
			215066		443299		1320707	5.00		10.0		30.0
				2580688					60.0			
Methyl methacrylate	FB	Ave			11608		20939			2.00		4.00
			277060		46363		94799		10.0	120	20.0	
					545200			60.0				
Dibromomethane	FB	Ave	7097	22545		42931		0.300	1.00		2.00	
			107201		221961		654298	5.00		10.0		30.0
				1255247					60.0			
1,4-Dioxane	FB	Lin2	+++++	1190		3158		+++++	20.0		40.0	
			11405		24744		87288	100		200		600
				154119					1200			
Bromodichloromethane	FB	Ave	18101	64456		126497		0.300	1.00		2.00	
			314609		672865		1964681	5.00		10.0		30.0
				3971466					60.0			
2-Nitropropane	FB	Ave			7254		13786			2.00		4.00
			235853		34617		68670		10.0	120	20.0	
					474539			60.0				
2-Chloroethyl vinyl ether	FB	Ave	+++++	8401		12060		+++++	1.00		2.00	
			37567		74647		271671	5.00		10.0		30.0
				539090					60.0			
cis-1,3-Dichloropropene	CBZ	Ave	16389	55629		107388		0.300	1.00		2.00	
			276201		571072		1713888	5.00		10.0		30.0
				3329041					60.0			

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-70279-1 Analy Batch No.: 279265

SDG No.: _____

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53 (mm)) Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2015 00:18 Calibration End Date: 05/28/2015 05:10 Calibration ID: 22417

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6 LVL 11	LVL 2 LVL 7 LVL 12	LVL 3 LVL 8 LVL 13	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6 LVL 11	LVL 2 LVL 7 LVL 12	LVL 3 LVL 8 LVL 13	LVL 4 LVL 9	LVL 5 LVL 10
4-Methyl-2-pentanone (MIBK)	FB	Lin1	34884 425851	72563 5332900	1002764	125802	2918765	1.20 20.0	4.00 240	40.0	8.00	120
Toluene	FB	Ave	38452 621009	132622 7745216	1267160	237075	3836921	0.300 5.00	1.00 60.0	10.0	2.00	30.0
trans-1,3-Dichloropropene	FB	Ave	++++ 203021	41101 2363176	414785	78291	1231322	++++ 5.00	1.00 60.0	10.0	2.00	30.0
Ethyl methacrylate	CBZ	Ave	8665 165619	38403 1969555	351571	70056	1050575	0.300 5.00	1.00 60.0	10.0	2.00	30.0
1,1,2-Trichloroethane	FB	Ave	++++ 124206	28973 1387307	248293	51927	735362	++++ 5.00	1.00 60.0	10.0	2.00	30.0
Tetrachloroethene	CBZ	Ave	10578 191028	39068 2470886	395487	71310	1183439	0.300 5.00	1.00 60.0	10.0	2.00	30.0
1,3-Dichloropropane	CBZ	Ave	12859 205450	47124 2453301	440887	87035	1297830	0.300 5.00	1.00 60.0	10.0	2.00	30.0
2-Hexanone	CBZ	Lin1	20301 277410	43268 3687649	653257	85245	1981716	1.20 20.0	4.00 240	40.0	8.00	120
Chlorodibromomethane	CBZ	Ave	12707 197422	43268 2532153	424072	82411	1317455	0.300 5.00	1.00 60.0	10.0	2.00	30.0
1,2-Dibromoethane	CBZ	Ave	8631 143966	29215 1794214	309647	58280	925921	0.300 5.00	1.00 60.0	10.0	2.00	30.0
1-Chlorohexane	CBZ	Ave	21495 315700	66824 3982029	633113	118927	1911706	0.300 5.00	1.00 60.0	10.0	2.00	30.0
Chlorobenzene	CBZ	Ave	25956 413665	85583 5169847	859727	161425	2540363	0.300 5.00	1.00 60.0	10.0	2.00	30.0
1,1,1,2-Tetrachloroethane	CBZ	Ave	11938 201252	41387 2510665	419142	77661	1254447	0.300 5.00	1.00 60.0	10.0	2.00	30.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-70279-1 Analy Batch No.: 279265

SDG No.: _____

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53 (mm)) Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2015 00:18 Calibration End Date: 05/28/2015 05:10 Calibration ID: 22417

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7	LVL 8	LVL 9	LVL 10	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10
			LVL 11	LVL 12	LVL 13		LVL 11	LVL 12	LVL 13			
Ethylbenzene	CBZ	Ave	12392 213988	43467 2674714	449228	82557	1300912	0.300 5.00	1.00 60.0	10.0	2.00	30.0
m-Xylene & p-Xylene	CBZ	Ave	17023 290550	62391 3670522	601905	102405	1816296	0.300 5.00	1.00 60.0	10.0	2.00	30.0
o-Xylene	CBZ	Ave	14418 253986	51986 3193493	528399	100515	1578391	0.300 5.00	1.00 60.0	10.0	2.00	30.0
Styrene	CBZ	Ave	22003 413563	88179 5159432	858871	160271	2556260	0.300 5.00	1.00 60.0	10.0	2.00	30.0
Bromoform	CBZ	Ave	6045 112580	21881 1411916	243755	43536	737056	0.300 5.00	1.00 60.0	10.0	2.00	30.0
Isopropylbenzene	DCB	Ave	48827 812395	171044 10313550	1680664	305501	4996844	0.300 5.00	1.00 60.0	10.0	2.00	30.0
cis-1,4-Dichloro-2-butene	DCB	Ave	206859	35995	5565	75289	15634	30.0	5.00	1.00 60.0	10.0	2.00
Cyclohexanone	CBZ	Lin1	8548 94188	15703 1194077	223269	29957	677839	12.0 200	40.0 2400	400	80.0	1200
Bromobenzene	DCB	Ave	10185 189284	38258 2406376	397495	73134	1204988	0.300 5.00	1.00 60.0	10.0	2.00	30.0
1,1,2,2-Tetrachloroethane	DCB	Ave	++++ 162847	38437 1907715	350506	68821	1042084	++++ 5.00	1.00 60.0	10.0	2.00	30.0
1,2,3-Trichloropropane	DCB	Ave	2701 37836	8533 434508	79592	16148	231112	0.300 5.00	1.00 60.0	10.0	2.00	30.0
trans-1,4-Dichloro-2-butene	DCB	Ave	++++ 44139	10962 486849	86189	18311	257129	++++ 5.00	1.00 60.0	10.0	2.00	30.0
N-Propylbenzene	DCB	Ave	11808 201896	41134 2510741	412525	76813	1211930	0.300 5.00	1.00 60.0	10.0	2.00	30.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-70279-1 Analy Batch No.: 279265

SDG No.: _____

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53 (mm)) Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2015 00:18 Calibration End Date: 05/28/2015 05:10 Calibration ID: 22417

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7	LVL 8	LVL 9	LVL 10	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10
			LVL 11	LVL 12	LVL 13		LVL 11	LVL 12	LVL 13			
2-Chlorotoluene	DCB	Ave	9287 150706	32135 1941695	320058	60448	938094	0.300 5.00	1.00 60.0	10.0	2.00	30.0
1,3,5-Trimethylbenzene	DCB	Ave	38588 610567	124917 7739677	1267667	234990	3748579	0.300 5.00	1.00 60.0	10.0	2.00	30.0
4-Chlorotoluene	DCB	Ave	11247 193360	41938 2561711	412960	78238	1265565	0.300 5.00	1.00 60.0	10.0	2.00	30.0
tert-Butylbenzene	DCB	Ave	41418 664399	139500 8377315	1369653	250654	4067161	0.300 5.00	1.00 60.0	10.0	2.00	30.0
1,2,4-Trimethylbenzene	DCB	Ave	36504 580572	121648 7231176	1206077	221512	3557690	0.300 5.00	1.00 60.0	10.0	2.00	30.0
sec-Butylbenzene	DCB	Ave	10292 177196	35553 2264838	365299	69410	1080246	0.300 5.00	1.00 60.0	10.0	2.00	30.0
1,3-Dichlorobenzene	DCB	Ave	17375 276824	59259 3660427	591386	108495	1735503	0.300 5.00	1.00 60.0	10.0	2.00	30.0
p-Isopropyltoluene	DCB	Ave	42337 767309	156306 9779012	1595405	292735	4713028	0.300 5.00	1.00 60.0	10.0	2.00	30.0
1,4-Dichlorobenzene	DCB	Ave	25137 443692	90470 5532730	897375	173354	2812786	0.300 5.00	1.00 60.0	10.0	2.00	30.0
1,2,3-Trimethylbenzene	DCB	Ave		519679	111761	1016440	209412		5.00	1.00	10.0	2.00
n-Butylbenzene	DCB	Ave	49540 798058	162753 10123491	1632647	295629	4897561	0.300 5.00	1.00 60.0	10.0	2.00	30.0
1,2-Dichlorobenzene	DCB	Ave	16946 298057	60837 3820213	626018	117567	1890736	0.300 5.00	1.00 60.0	10.0	2.00	30.0
1,2-Dibromo-3-Chloropropane	DCB	Ave	1451 27832	5677 349881	61145	11040	184811	0.300 5.00	1.00 60.0	10.0	2.00	30.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-70279-1 Analy Batch No.: 279265

SDG No.: _____

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53 (mm)) Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2015 00:18 Calibration End Date: 05/28/2015 05:10 Calibration ID: 22417

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7	LVL 8	LVL 9	LVL 10	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10
1,2,4-Trichlorobenzene	DCB	Ave	10076 201768	40657 2675409	429478	79388	1320265	0.300 5.00	1.00 60.0	10.0	2.00	30.0
Hexachlorobutadiene	DCB	Ave	11646 209088	43213 2743229	438309	81678	1302417	0.300 5.00	1.00 60.0	10.0	2.00	30.0
Naphthalene	DCB	Ave	13238 221754	45982 2893523	486464	88140	1488412	0.300 5.00	1.00 60.0	10.0	2.00	30.0
1,2,3-Trichlorobenzene	DCB	Ave	8851 158675	32643 2079040	333902	56420	1050261	0.300 5.00	1.00 60.0	10.0	2.00	30.0
Dibromofluoromethane (Surr)	FB	Ave	1592725	266180	62835 3238689	546393	118288	30.0	5.00	1.00 60.0	10.0	2.00
1,2-Dichloroethane-d4 (Surr)	FB	Ave	881719	149069	33456 1797526	308839	66325	30.0	5.00	1.00 60.0	10.0	2.00
Toluene-d8 (Surr)	CBZ	Ave	3504937	582345	134275 7087877	1177961	255016	30.0	5.00	1.00 60.0	10.0	2.00
4-Bromofluorobenzene (Surr)	DCB	Ave	1920918	317561	81659 3915034	618356	142343	30.0	5.00	1.00 60.0	10.0	2.00

Curve Type Legend

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Lin2 = Linear 1/conc^2 ISTD

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2949.D
 Lims ID: ic
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 28-May-2015 00:18:30 ALS Bottle#: 3 Worklist Smp#: 9
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ic
 Operator ID: BERGERB Instrument ID: VMS_H
 Sublist: chrom-AQ_VMSH_8260*sub99
 Method: \\Denchrom\ChromData\VMS_H\20150528-35452.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 02-Jun-2015 08:03:28 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK030

First Level Reviewer: moanm

Date: 02-Jun-2015 08:03:27

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.994	3.974	0.020	97	193515	250.0	250.0	
* 2 Fluorobenzene	96	6.762	6.759	0.003	97	1055741	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.115	11.094	0.021	91	255283	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.109	14.106	0.003	98	371746	12.5	12.5	
28 Dichlorodifluoromethane	85	2.166	2.164	0.002	95	17035	0.3000	0.4280	
30 Chloromethane	50	2.253	2.269	-0.016	95	11373	0.3000	0.3460	
31 Butadiene	54	2.375	2.373	0.002	0	9511	NC	NC	
32 Vinyl chloride	62	2.375	2.390	-0.015	87	11464	0.3000	0.3566	
35 Bromomethane	94	2.671	2.669	0.002	93	11483	0.3000	0.4304	
36 Chloroethane	64	2.758	2.756	0.002	97	8427	0.3000	0.4312	
37 Dichlorofluoromethane	67	2.932	2.930	0.002	96	30915	0.3000	0.4361	
38 Trichlorofluoromethane	101	2.985	2.982	0.003	98	22025	0.3000	0.3473	
40 Ethyl ether	59	3.228	3.226	0.002	88	5076	0.3000	0.3030	
44 Acrolein	56		3.365				ND	ND	
45 1,1-Dichloroethene	96	3.489	3.470	0.019	93	9301	0.3000	0.2950	
46 1,1,2-Trichloro-1,2,2-trif	151	3.507	3.487	0.020	93	11802	0.3000	0.2746	
47 Acetone	43	3.507	3.505	0.002	95	12647	1.20	3.85	
48 Iodomethane	142	3.646	3.644	0.002	98	21695	0.3000	0.3057	
50 Carbon disulfide	76	3.733	3.731	0.002	96	41433	0.3000	0.3408	
52 3-Chloro-1-propene	41	3.820	3.818	0.002	82	22629	0.3000	0.3092	
53 Methyl acetate	43	3.838	3.818	0.020	77	13933	1.50	1.31	
54 Methylene Chloride	84	3.960	3.957	0.003	97	20589	0.3000	0.2991	
55 2-Methyl-2-propanol	59	4.099	4.062	0.037	92	6971	3.00	3.17	
57 Acrylonitrile	53	4.203	4.201	0.002	39	7644	3.00	2.78	
58 trans-1,2-Dichloroethene	96	4.238	4.236	0.002	95	11159	0.3000	0.3146	
56 Methyl tert-butyl ether	73	4.238	4.236	0.002	91	19196	0.3000	0.3194	
59 Hexane	57	4.499	4.514	-0.015	91	18384	0.3000	0.2685	
60 1,1-Dichloroethane	63	4.691	4.688	0.003	95	23998	0.3000	0.3205	
61 Vinyl acetate	43	4.743	4.723	0.020	97	26188	0.6000	0.5647	
65 cis-1,2-Dichloroethene	96	5.352	5.367	-0.015	88	10712	0.3000	0.2997	
67 2-Butanone (MEK)	43		5.367				ND	ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
66 2,2-Dichloropropane	77	5.317	5.385	-0.068	80	62959	0.3000	0.2386	
71 sec-Butyl Alcohol	45	5.596	5.576	0.020	91	15358	9.00	11.1	
73 Chlorobromomethane	128	5.666	5.663	0.003	92	4564	0.3000	0.2910	
74 Tetrahydrofuran	42	5.735	5.716	0.019	41	4474	0.6000	1.03	
75 Chloroform	83	5.735	5.733	0.002	96	20454	0.3000	0.2925	
76 1,1,1-Trichloroethane	97	5.979	5.977	0.002	97	19475	0.3000	0.2916	
77 Cyclohexane	56	6.049	6.046	0.003	91	21245	0.3000	0.2883	
78 1,1-Dichloropropene	75	6.171	6.168	0.003	90	20169	0.3000	0.3369	
79 Carbon tetrachloride	117	6.188	6.186	0.002	94	17528	0.3000	0.2823	
80 Isobutyl alcohol	41		6.290				ND	ND	
81 Benzene	78	6.432	6.429	0.003	97	32434	0.3000	0.2933	
82 1,2-Dichloroethane	62		6.447				ND	ND	
84 n-Heptane	43	6.728	6.725	0.003	96	27451	0.3000	0.2803	
86 Trichloroethene	95	7.233	7.230	0.003	94	12844	0.3000	0.2856	
88 2-Pentanone	43	7.494	7.474	0.020	63	22323	1.20	1.33	
89 Methylcyclohexane	55	7.494	7.491	0.003	85	16660	0.3000	0.2538	
90 1,2-Dichloropropane	63	7.528	7.526	0.002	62	12750	0.3000	0.2886	
92 Dibromomethane	93	7.703	7.700	0.003	90	7097	0.3000	0.3223	
93 1,4-Dioxane	88		7.718				ND	ND	
94 Dichlorobromomethane	83	7.894	7.892	0.002	97	18101	0.3000	0.2815	
96 2-Chloroethyl vinyl ether	63		8.292				ND	ND	
97 cis-1,3-Dichloropropene	75	8.503	8.501	0.002	89	16389	0.3000	0.2725	
98 4-Methyl-2-pentanone (MIBK)	43	8.730	8.710	0.020	96	34884	1.20	1.61	
99 Toluene	91	8.973	8.971	0.002	98	38452	0.3000	0.3033	
100 trans-1,3-Dichloropropene	75		9.285				ND	ND	
101 Ethyl methacrylate	69	9.409	9.406	0.003	52	8665	0.3000	0.2347	
102 1,1,2-Trichloroethane	97	9.548	9.546	0.002	39	11674	0.3000	0.4595	
103 Tetrachloroethene	164	9.774	9.772	0.002	94	10578	0.3000	0.2547	
104 1,3-Dichloropropane	76	9.792	9.789	0.003	76	12859	0.3000	0.2747	
105 2-Hexanone	43	9.948	9.929	0.019	95	20301	1.20	1.71	
108 Chlorodibromomethane	129	10.157	10.155	0.002	90	12707	0.3000	0.2789	
109 Ethylene Dibromide	107	10.349	10.329	0.020	96	8631	0.3000	0.2688	
110 1-Chlorohexane	91	11.115	11.113	0.002	52	21495	0.3000	0.3064	
111 Chlorobenzene	112	11.150	11.147	0.003	86	25956	0.3000	0.2835	
112 1,1,1,2-Tetrachloroethane	131	11.272	11.287	-0.015	73	11938	0.3000	0.2701	
113 Ethylbenzene	106	11.324	11.322	0.002	98	12392	0.3000	0.2655	
114 m-Xylene & p-Xylene	106	11.515	11.496	0.019	97	17023	0.3000	0.2683	
115 o-Xylene	106	12.072	12.070	0.002	97	14418	0.3000	0.2590	
116 Styrene	104	12.090	12.088	0.002	95	22003	0.3000	0.2444	
117 Bromoform	173	12.334	12.349	-0.015	88	6045	0.3000	0.2459	
118 Isopropylbenzene	105	12.560	12.558	0.002	96	48827	0.3000	0.3065	
120 Cyclohexanone	55	12.699	12.697	0.002	88	8548	12.0	16.8	
122 Bromobenzene	156	12.943	12.941	0.002	92	10185	0.3000	0.2773	
121 1,1,2,2-Tetrachloroethane	83	12.960	12.958	0.002	67	14087	0.3000	0.4249	
123 1,2,3-Trichloropropane	110	12.995	12.993	0.002	79	2701	0.3000	0.3484	
124 trans-1,4-Dichloro-2-buten	53	13.030	13.028	0.002	59	1719	0.3000	0.1976	
125 N-Propylbenzene	120	13.082	13.080	0.002	99	11808	0.3000	0.3028	
126 2-Chlorotoluene	126	13.187	13.184	0.003	96	9287	0.3000	0.3074	
127 1,3,5-Trimethylbenzene	105	13.291	13.289	0.002	94	38588	0.3000	0.3202	
128 4-Chlorotoluene	126	13.326	13.306	0.020	97	11247	0.3000	0.2880	
129 tert-Butylbenzene	119	13.674	13.672	0.002	95	41418	0.3000	0.3169	
130 1,2,4-Trimethylbenzene	105	13.726	13.724	0.002	95	36504	0.3000	0.3189	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
131 sec-Butylbenzene	134	13.918	13.916	0.002	94	10292	0.3000	0.2983	
132 1,3-Dichlorobenzene	146	14.040	14.037	0.003	86	17375	0.3000	0.3114	
133 4-Isopropyltoluene	119	14.074	14.072	0.002	97	42337	0.3000	0.2853	
134 1,4-Dichlorobenzene	146	14.127	14.142	-0.015	81	25137	0.3000	0.2916	
137 n-Butylbenzene	91	14.510	14.507	0.003	98	49540	0.3000	0.3179	
138 1,2-Dichlorobenzene	146	14.527	14.542	-0.015	95	16946	0.3000	0.2893	
139 1,2-Dibromo-3-Chloropropan	157	15.293	15.326	-0.033	68	1451	0.3000	0.2654	
144 1,2,3-Trichlorobenzene	180	16.529	16.074	0.455	45	8851	0.3000	0.2284	a
142 Hexachlorobutadiene	225	16.233	16.231	0.002	94	11646	0.3000	0.2840	
143 Naphthalene	128	16.303	16.301	0.002	92	13238	0.3000	0.2957	
141 1,2,4-Trichlorobenzene	180	16.077	16.527	-0.450	52	10076	0.3000	0.3192	a
S 151 1,2-Dichloroethene, Total	96				0		0.6000	0.6143	
S 145 Trihalomethanes, Total	1				0		1.20	1.10	
S 146 Xylenes, Total (URS)	1				0		0.6000	0.5273	
S 147 Total BTEX	1				0			1.39	
S 148 1,3-Dichloropropene, Total	1				0		0.6000	0.2725	
S 149 1,2-Dichloroethene, Total	1				0		0.6000	0.6143	
S 150 Xylenes, Total	106				0		0.6000	0.5273	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Review Flags

a - User Assigned ID

Reagents:

MV-568718-D_00002	Amount Added: 1.00	Units: uL
MV-Main A_00022	Amount Added: 0.15	Units: uL
MV-Gas/Ket A_00033	Amount Added: 0.15	Units: uL
MV-2cleve+AVA_00009	Amount Added: 0.15	Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2949.D

Injection Date: 28-May-2015 00:18:30

Instrument ID: VMS_H

Operator ID: BERGERB

Lims ID: ic

Worklist Smp#: 9

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

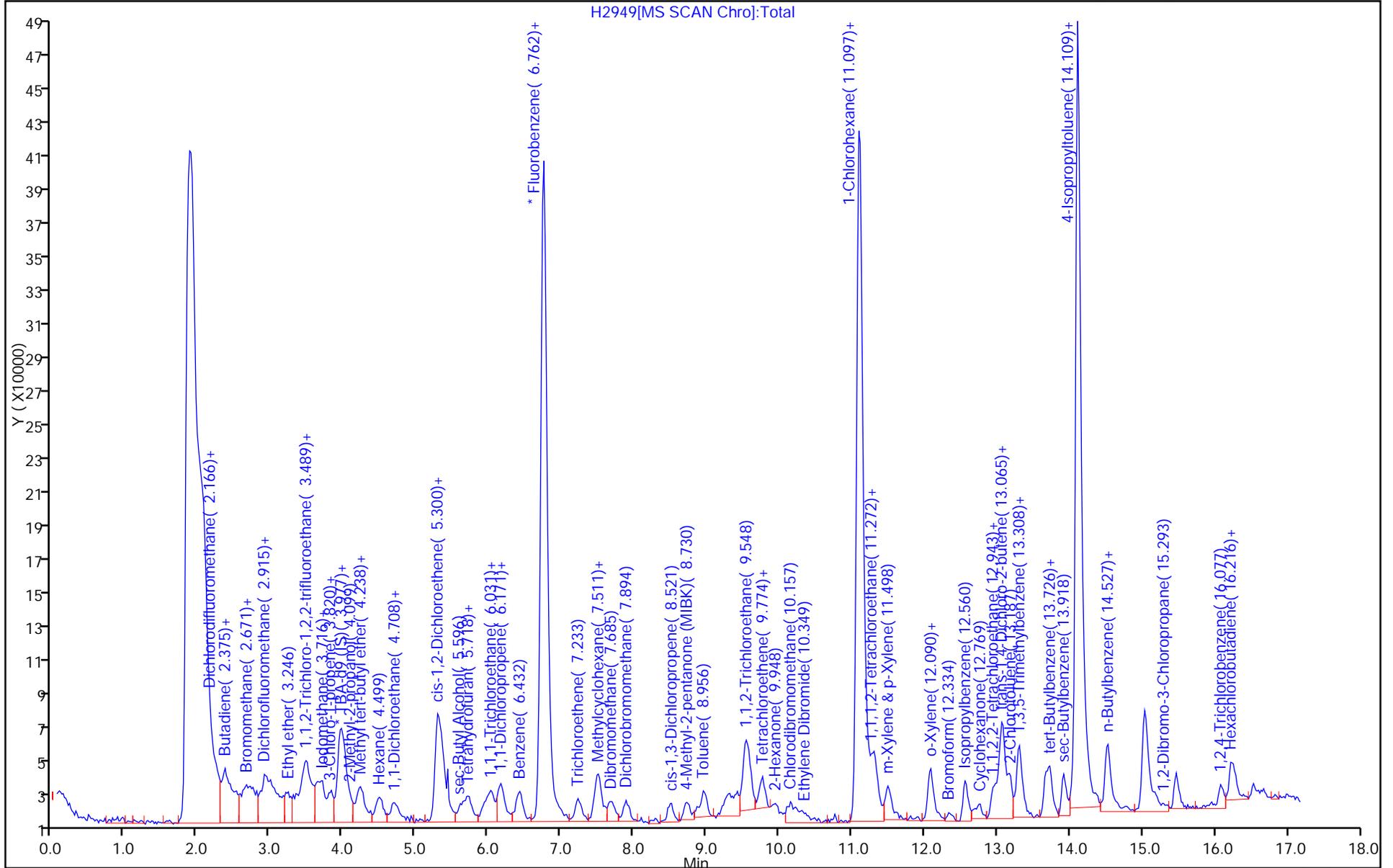
ALS Bottle#: 3

Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



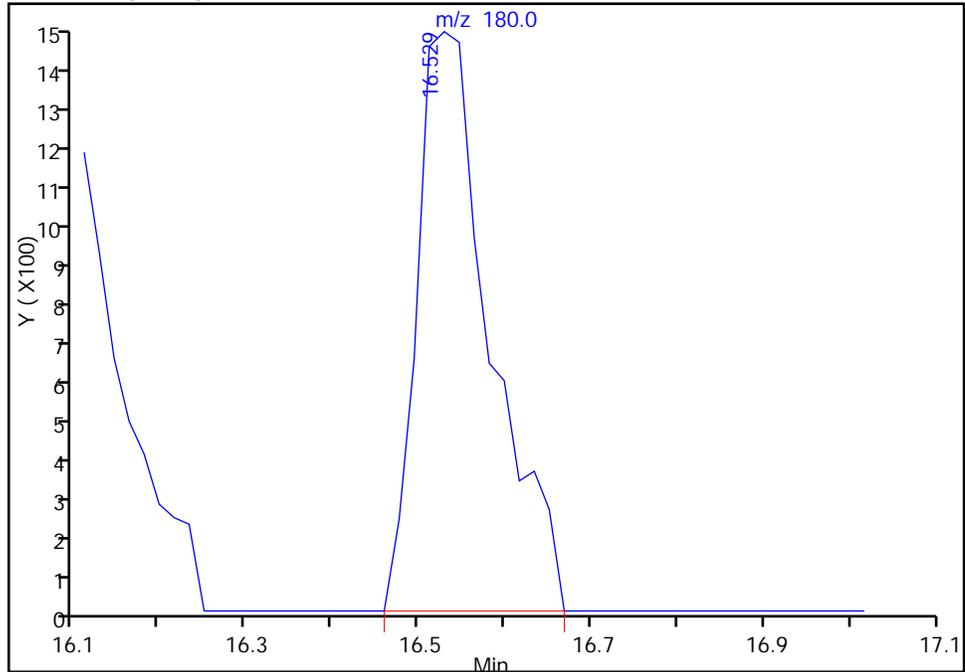
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2949.D
Injection Date: 28-May-2015 00:18:30 Instrument ID: VMS_H
Lims ID: ic
Client ID:
Operator ID: BERGERB ALS Bottle#: 3 Worklist Smp#: 9
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

141 1,2,4-Trichlorobenzene, CAS: 120-82-1

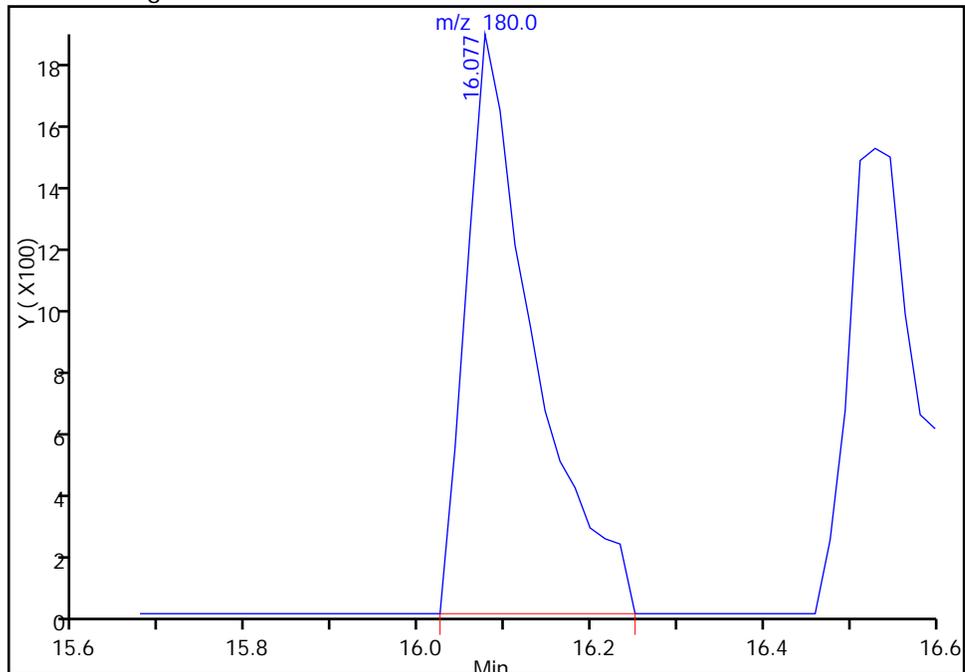
RT: 16.53
Area: 8851
Amount: 0.285656
Amount Units: ug/l

Processing Integration Results



RT: 16.08
Area: 10076
Amount: 0.319183
Amount Units: ug/l

Manual Integration Results



Reviewer: moanm, 02-Jun-2015 08:03:27
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

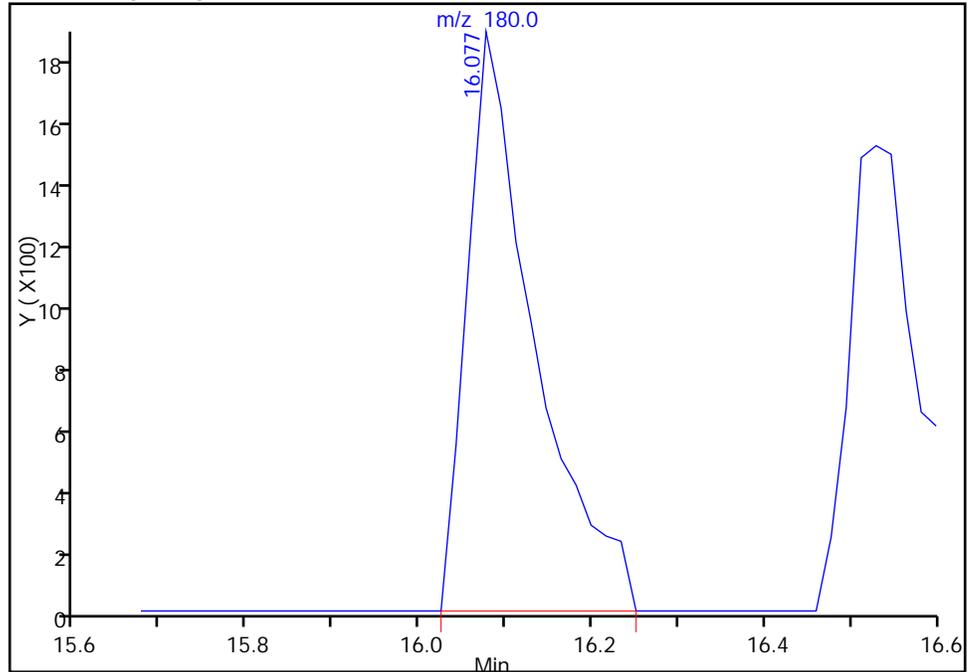
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2949.D
Injection Date: 28-May-2015 00:18:30 Instrument ID: VMS_H
Lims ID: ic
Client ID:
Operator ID: BERGERB ALS Bottle#: 3 Worklist Smp#: 9
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

144 1,2,3-Trichlorobenzene, CAS: 87-61-6

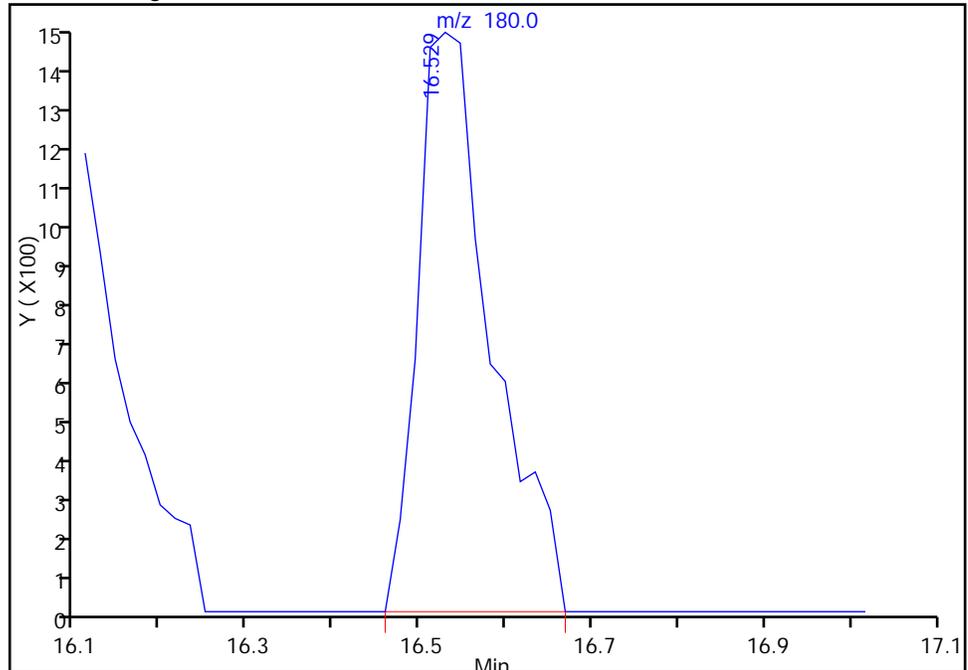
RT: 16.08
Area: 10076
Amount: 0.256125
Amount Units: ug/l

Processing Integration Results



RT: 16.53
Area: 8851
Amount: 0.228373
Amount Units: ug/l

Manual Integration Results



Reviewer: moanm, 02-Jun-2015 08:03:27
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2950.D
 Lims ID: ic
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 28-May-2015 00:40:30 ALS Bottle#: 4 Worklist Smp#: 10
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ic
 Operator ID: BERGERB Instrument ID: VMS_H
 Sublist: chrom-AQ_VMSH_8260*sub99
 Method: \\Denchrom\ChromData\VMS_H\20150528-35452.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 02-Jun-2015 08:03:43 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK030

First Level Reviewer: wickhamt Date: 28-May-2015 06:21:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.993	3.974	0.019	97	193113	250.0	250.0	
* 2 Fluorobenzene	96	6.761	6.759	0.002	97	1059430	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.096	11.094	0.002	93	237965	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.108	14.106	0.002	98	377864	12.5	12.5	
28 Dichlorodifluoromethane	85	2.148	2.164	-0.016	98	42175	1.00	0.9145	
30 Chloromethane	50	2.252	2.269	-0.017	99	30623	1.00	0.9283	M
31 Butadiene	54	2.374	2.373	0.001	0	23161	NC	NC	
32 Vinyl chloride	62	2.391	2.390	0.001	89	29166	1.00	0.9040	
35 Bromomethane	94	2.670	2.669	0.001	90	27242	1.00	1.02	
36 Chloroethane	64	2.757	2.756	0.001	97	19936	1.00	1.02	
37 Dichlorofluoromethane	67	2.931	2.930	0.001	98	65058	1.00	0.9145	
38 Trichlorofluoromethane	101	2.983	2.982	0.001	98	56652	1.00	0.8902	
40 Ethyl ether	59	3.227	3.226	0.001	94	17097	1.00	1.02	
44 Acrolein	56	3.366	3.365	0.001	94	12221	10.0	10.6	
45 1,1-Dichloroethene	96	3.471	3.470	0.001	94	33271	1.00	1.05	
46 1,1,2-Trichloro-1,2,2-trif	151	3.488	3.487	0.001	95	44325	1.00	1.03	
47 Acetone	43	3.505	3.505	0.000	46	16671	4.00	5.06	
48 Iodomethane	142	3.645	3.644	0.001	98	73821	1.00	1.04	
50 Carbon disulfide	76	3.732	3.731	0.001	95	123216	1.00	1.01	
52 3-Chloro-1-propene	41	3.819	3.818	0.001	84	77645	1.00	1.06	
53 Methyl acetate	43	3.819	3.818	0.001	73	59188	5.00	5.55	
54 Methylene Chloride	84	3.941	3.957	-0.016	98	39793	1.00	1.01	
55 2-Methyl-2-propanol	59	4.080	4.062	0.018	95	10757	10.0	7.40	
57 Acrylonitrile	53	4.202	4.201	0.001	54	28348	10.0	10.3	
58 trans-1,2-Dichloroethene	96	4.237	4.236	0.001	94	35154	1.00	0.9876	
56 Methyl tert-butyl ether	73	4.237	4.236	0.001	84	62101	1.00	1.03	
59 Hexane	57	4.498	4.514	-0.016	95	64190	1.00	1.01	
60 1,1-Dichloroethane	63	4.689	4.688	0.001	96	79883	1.00	1.06	
61 Vinyl acetate	43	4.724	4.723	0.001	96	84948	2.00	1.83	
65 cis-1,2-Dichloroethene	96	5.351	5.367	-0.016	87	37013	1.00	1.03	
67 2-Butanone (MEK)	43	5.368	5.367	0.001	45	24233	4.00	3.99	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
66 2,2-Dichloropropane	77	5.368	5.385	-0.017	76	111289	1.00	1.02	
71 sec-Butyl Alcohol	45	5.595	5.576	0.019	97	44351	30.0	32.1	
73 Chlorobromomethane	128	5.647	5.663	-0.016	90	15065	1.00	0.9571	
74 Tetrahydrofuran	42	5.716	5.716	0.000	40	9425	2.00	2.15	
75 Chloroform	83	5.716	5.733	-0.017	95	75009	1.00	1.07	
76 1,1,1-Trichloroethane	97	5.978	5.977	0.001	96	69076	1.00	1.03	
77 Cyclohexane	56	6.047	6.046	0.001	92	74464	1.00	1.01	
78 1,1-Dichloropropene	75	6.152	6.168	-0.016	90	61407	1.00	1.02	
79 Carbon tetrachloride	117	6.187	6.186	0.001	96	63160	1.00	1.01	
80 Isobutyl alcohol	41	6.291	6.290	0.001	90	13096	25.0	27.0	
81 Benzene	78	6.413	6.429	-0.016	97	109532	1.00	0.9869	
82 1,2-Dichloroethane	62	6.448	6.447	0.001	94	34787	1.00	1.04	
84 n-Heptane	43	6.709	6.725	-0.016	97	102379	1.00	1.04	
86 Trichloroethene	95	7.231	7.230	0.001	97	44827	1.00	0.99	
88 2-Pentanone	43	7.475	7.474	0.001	95	65366	4.00	3.88	
89 Methylcyclohexane	55	7.492	7.491	0.001	92	69997	1.00	1.06	
90 1,2-Dichloropropane	63	7.527	7.526	0.001	95	47827	1.00	1.08	
92 Dibromomethane	93	7.684	7.700	-0.016	94	22545	1.00	1.02	
93 1,4-Dioxane	88	7.736	7.718	0.018	30	1190	20.0	20.9	
94 Dichlorobromomethane	83	7.893	7.892	0.001	98	64456	1.00	1.00	
96 2-Chloroethyl vinyl ether	63	8.293	8.292	0.001	82	8401	1.00	1.06	
97 cis-1,3-Dichloropropene	75	8.502	8.501	0.001	91	55629	1.00	0.99	
98 4-Methyl-2-pentanone (MIBK)	43	8.728	8.710	0.018	98	72563	4.00	3.27	
99 Toluene	91	8.972	8.971	0.001	97	132622	1.00	1.04	
100 trans-1,3-Dichloropropene	75	9.285	9.285	0.000	94	41101	1.00	1.01	
101 Ethyl methacrylate	69	9.407	9.406	0.001	95	38403	1.00	1.12	
102 1,1,2-Trichloroethane	97	9.547	9.546	0.001	54	28973	1.00	1.14	
103 Tetrachloroethene	164	9.756	9.772	-0.016	94	39068	1.00	1.01	
104 1,3-Dichloropropane	76	9.790	9.789	0.001	95	47124	1.00	1.08	
105 2-Hexanone	43	9.912	9.929	-0.017	96	43268	4.00	3.23	
108 Chlorodibromomethane	129	10.139	10.155	-0.016	90	43268	1.00	1.02	
109 Ethylene Dibromide	107	10.330	10.329	0.001	99	29215	1.00	0.9759	
110 1-Chlorohexane	91	11.113	11.113	0.000	81	66824	1.00	1.02	
111 Chlorobenzene	112	11.148	11.147	0.001	88	85583	1.00	1.00	
112 1,1,1,2-Tetrachloroethane	131	11.288	11.287	0.001	81	41387	1.00	1.00	
113 Ethylbenzene	106	11.322	11.322	0.000	99	43467	1.00	1.00	
114 m-Xylene & p-Xylene	106	11.496	11.496	0.000	97	62391	1.00	1.05	
115 o-Xylene	106	12.071	12.070	0.001	98	51986	1.00	1.00	
116 Styrene	104	12.088	12.088	0.000	94	88179	1.00	1.05	
117 Bromoform	173	12.350	12.349	0.001	94	21881	1.00	0.9548	
118 Isopropylbenzene	105	12.558	12.558	0.000	97	171044	1.00	1.06	
120 Cyclohexanone	55	12.680	12.697	-0.017	94	15703	40.0	31.4	
122 Bromobenzene	156	12.941	12.941	0.000	92	38258	1.00	1.02	
121 1,1,2,2-Tetrachloroethane	83	12.959	12.958	0.001	71	38437	1.00	1.14	
123 1,2,3-Trichloropropane	110	13.011	12.993	0.018	79	8533	1.00	1.08	
124 trans-1,4-Dichloro-2-buten	53	13.029	13.028	0.000	63	10962	1.00	1.24	
125 N-Propylbenzene	120	13.081	13.080	0.001	99	41134	1.00	1.04	
126 2-Chlorotoluene	126	13.168	13.184	-0.016	97	32135	1.00	1.05	
127 1,3,5-Trimethylbenzene	105	13.290	13.289	0.001	94	124917	1.00	1.02	
128 4-Chlorotoluene	126	13.307	13.306	0.001	98	41938	1.00	1.06	
129 tert-Butylbenzene	119	13.673	13.672	0.001	95	139500	1.00	1.05	
130 1,2,4-Trimethylbenzene	105	13.725	13.724	0.001	96	121648	1.00	1.05	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
131 sec-Butylbenzene	134	13.916	13.916	0.000	95	35553	1.00	1.01	
132 1,3-Dichlorobenzene	146	14.038	14.037	0.001	97	59259	1.00	1.04	
133 4-Isopropyltoluene	119	14.073	14.072	0.001	98	156306	1.00	1.04	
134 1,4-Dichlorobenzene	146	14.125	14.142	-0.017	92	90470	1.00	1.03	
137 n-Butylbenzene	91	14.508	14.507	0.001	99	162753	1.00	1.03	
138 1,2-Dichlorobenzene	146	14.526	14.542	-0.016	95	60837	1.00	1.02	
139 1,2-Dibromo-3-Chloropropan	157	15.327	15.326	0.001	74	5677	1.00	1.02	
144 1,2,3-Trichlorobenzene	180	16.528	16.074	0.454	84	32643	1.00	0.8534	a
142 Hexachlorobutadiene	225	16.232	16.231	0.001	97	43213	1.00	1.04	
143 Naphthalene	128	16.302	16.301	0.001	97	45982	1.00	1.01	
141 1,2,4-Trichlorobenzene	180	16.075	16.527	-0.452	85	40657	1.00	1.22	a
S 151 1,2-Dichloroethene, Total	96				0		2.00	2.02	
S 145 Trihalomethanes, Total	1				0		4.00	4.04	
S 146 Xylenes, Total (URS)	1				0		2.00	2.06	
S 147 Total BTEX	1				0			5.09	
S 148 1,3-Dichloropropene, Total	1				0		2.00	2.00	
S 149 1,2-Dichloroethene, Total	1				0		2.00	2.02	
S 150 Xylenes, Total	106				0		2.00	2.06	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MV-568718-D_00002	Amount Added: 1.00	Units: uL
MV-Main A_00022	Amount Added: 0.50	Units: uL
MV-Gas/Ket A_00033	Amount Added: 0.50	Units: uL
MV-2cleve+AVA_00009	Amount Added: 0.50	Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2950.D

Injection Date: 28-May-2015 00:40:30

Instrument ID: VMS_H

Operator ID: BERGERB

Lims ID: ic

Worklist Smp#: 10

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

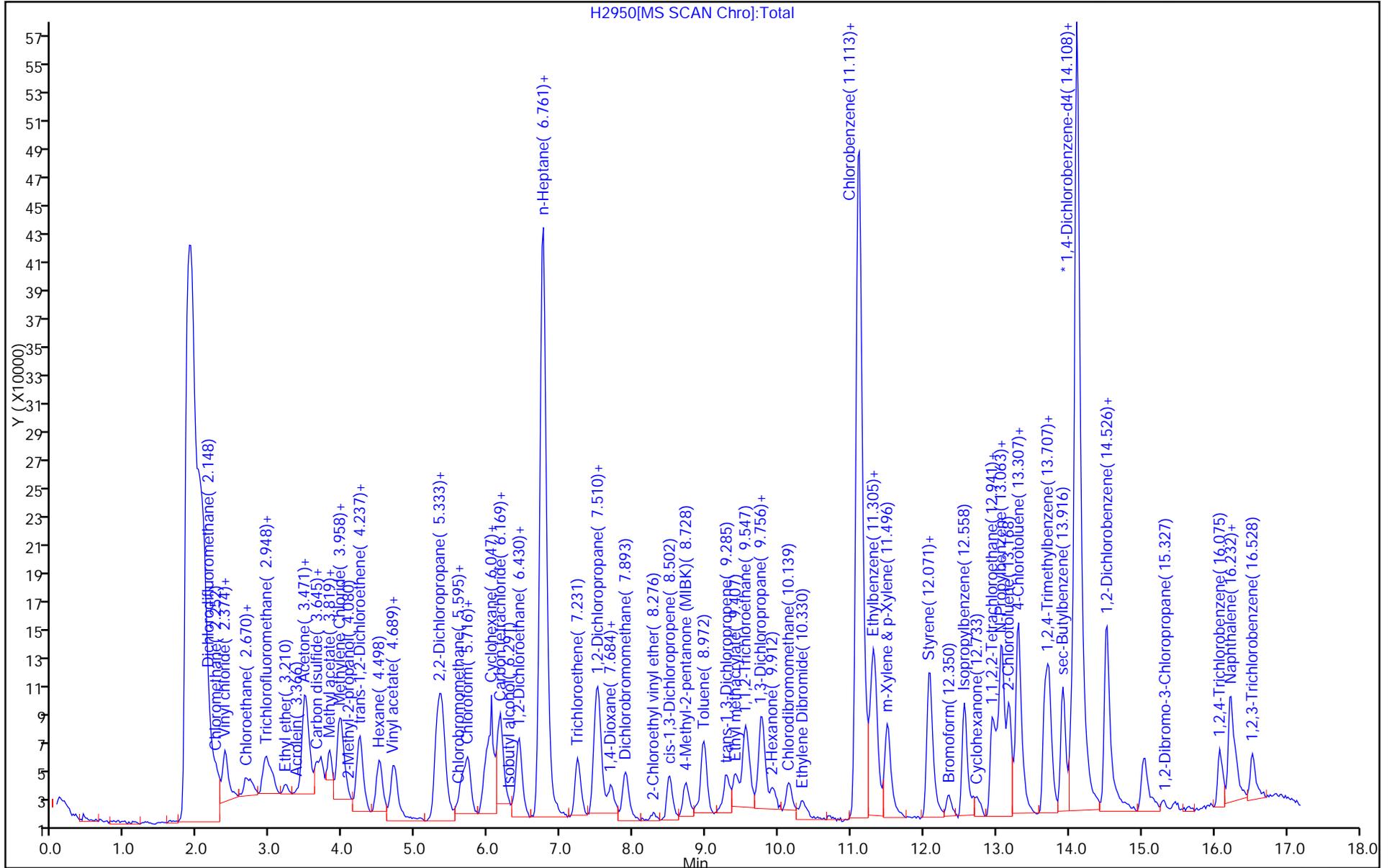
ALS Bottle#: 4

Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



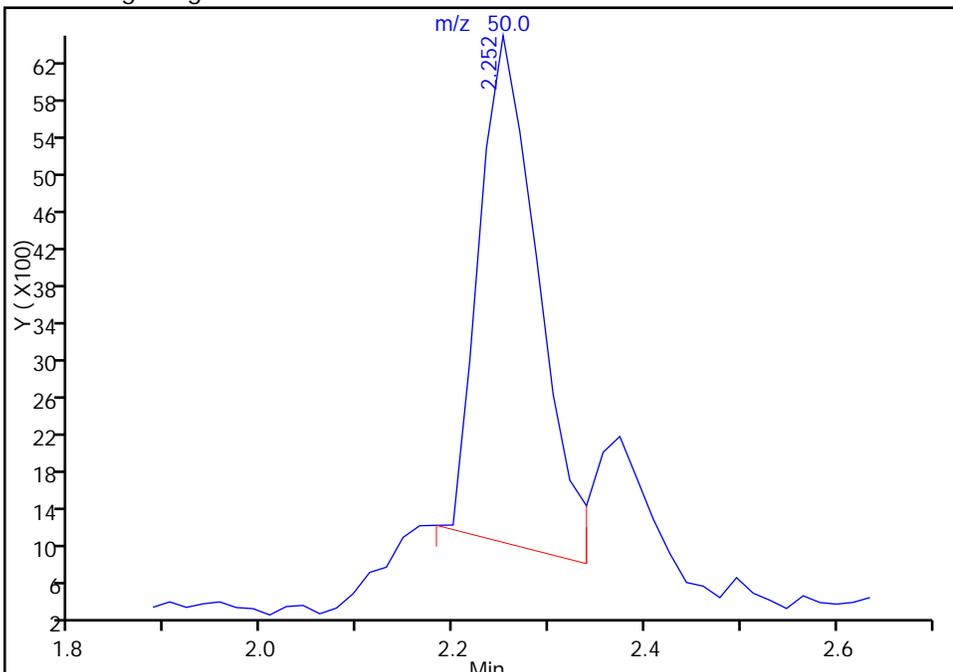
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2950.D
Injection Date: 28-May-2015 00:40:30 Instrument ID: VMS_H
Lims ID: ic
Client ID:
Operator ID: BERGERB ALS Bottle#: 4 Worklist Smp#: 10
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

30 Chloromethane, CAS: 74-87-3

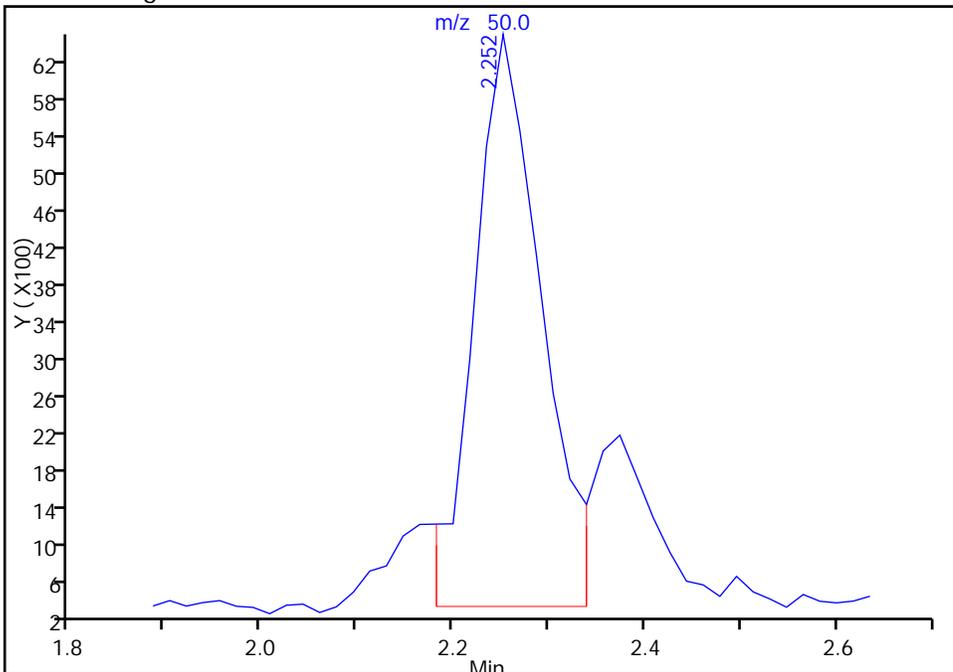
RT: 2.25
Area: 23488
Amount: 0.764324
Amount Units: ug/l

Processing Integration Results



RT: 2.25
Area: 30623
Amount: 0.928269
Amount Units: ug/l

Manual Integration Results



Reviewer: wickhamt, 28-May-2015 06:21:14
Audit Action: Assigned New Baseline
Audit Reason: Baseline

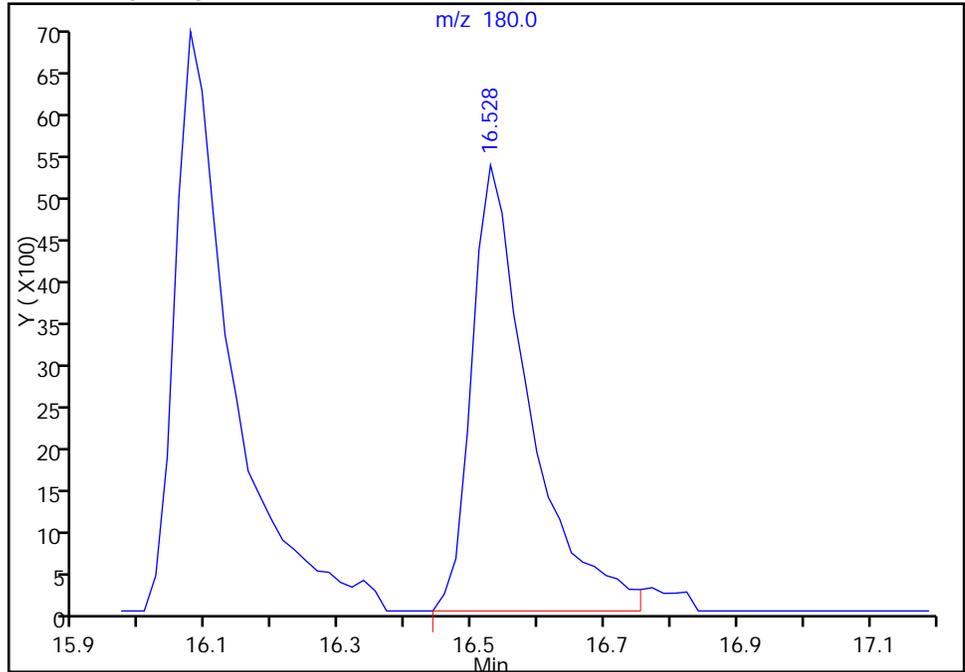
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2950.D
Injection Date: 28-May-2015 00:40:30 Instrument ID: VMS_H
Lims ID: ic
Client ID:
Operator ID: BERGERB ALS Bottle#: 4 Worklist Smp#: 10
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

141 1,2,4-Trichlorobenzene, CAS: 120-82-1

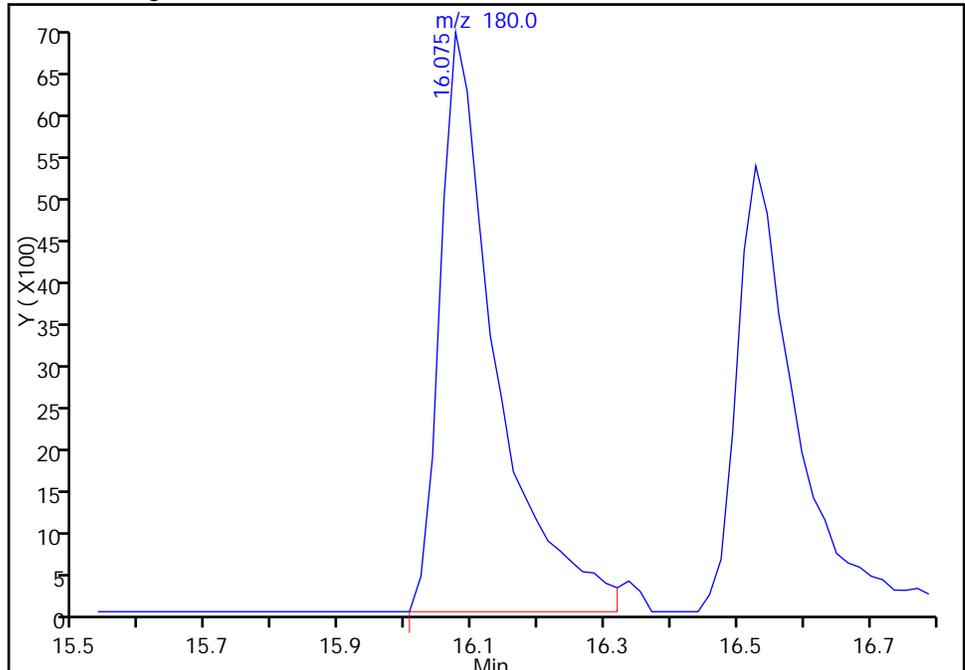
RT: 16.53
Area: 32643
Amount: 1.017307
Amount Units: ug/l

Processing Integration Results



RT: 16.08
Area: 40657
Amount: 1.223410
Amount Units: ug/l

Manual Integration Results



Reviewer: moanm, 02-Jun-2015 08:03:43
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

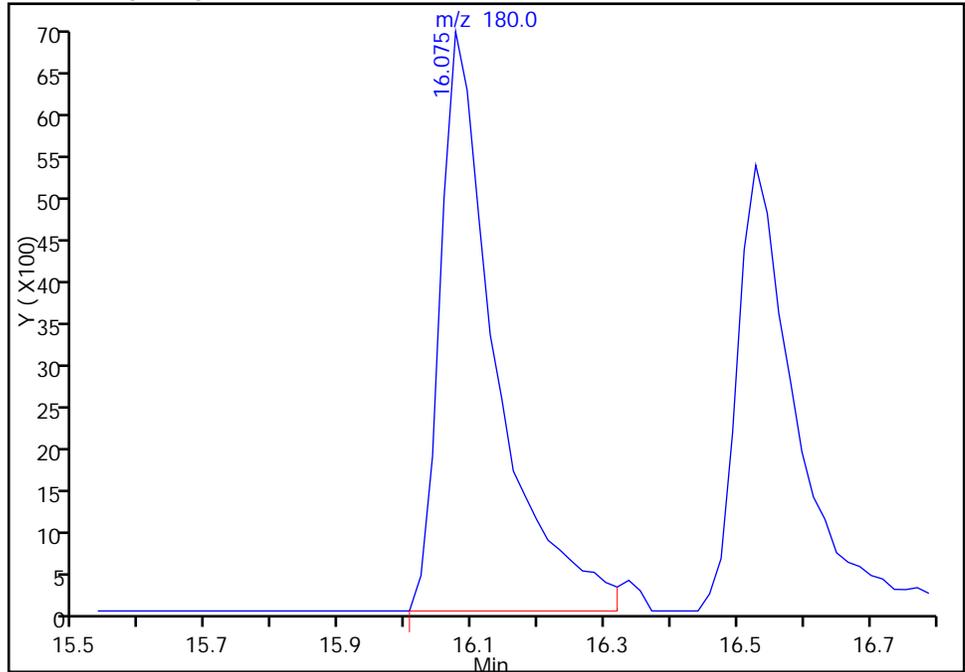
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2950.D
Injection Date: 28-May-2015 00:40:30 Instrument ID: VMS_H
Lims ID: ic
Client ID:
Operator ID: BERGERB ALS Bottle#: 4 Worklist Smp#: 10
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

144 1,2,3-Trichlorobenzene, CAS: 87-61-6

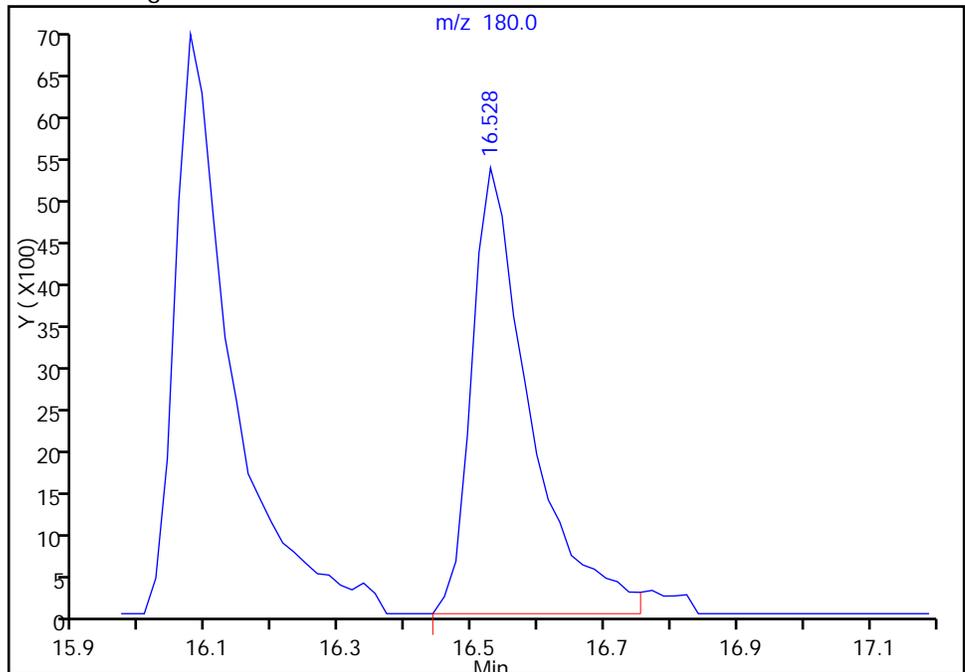
RT: 16.08
Area: 40657
Amount: 1.032043
Amount Units: ug/l

Processing Integration Results



RT: 16.53
Area: 32643
Amount: 0.853416
Amount Units: ug/l

Manual Integration Results



Reviewer: moanm, 02-Jun-2015 08:03:43
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2951.D
 Lims ID: ic
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 28-May-2015 01:03:30 ALS Bottle#: 5 Worklist Smp#: 11
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ic
 Operator ID: BERGERB Instrument ID: VMS_H
 Sublist: chrom-AQ_VMSH_8260*sub99
 Method: \\Denchrom\ChromData\VMS_H\20150528-35452.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 02-Jun-2015 08:04:02 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK030

First Level Reviewer: wickhamt Date: 28-May-2015 06:22:57

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.971	3.974	-0.003	97	188279	250.0	250.0	
* 2 Fluorobenzene	96	6.756	6.759	-0.003	96	1027041	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.109	11.094	0.015	94	231298	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.120	14.106	0.014	97	367583	12.5	12.5	
28 Dichlorodifluoromethane	85	2.143	2.164	-0.021	97	61856	2.00	1.33	
30 Chloromethane	50	2.247	2.269	-0.022	98	53286	2.00	1.67	M
31 Butadiene	54	2.369	2.373	-0.004	0	36913	NC	NC	
32 Vinyl chloride	62	2.386	2.390	-0.004	85	47784	2.00	1.53	
35 Bromomethane	94	2.665	2.669	-0.004	91	43358	2.00	1.67	
36 Chloroethane	64	2.735	2.756	-0.021	100	31142	2.00	1.64	
37 Dichlorofluoromethane	67	2.926	2.930	-0.004	97	111136	2.00	1.61	
38 Trichlorofluoromethane	101	2.996	2.982	0.014	99	89150	2.00	1.45	
40 Ethyl ether	59	3.222	3.226	-0.004	95	32923	2.00	2.02	
44 Acrolein	56	3.361	3.365	-0.004	98	21672	20.0	19.3	
45 1,1-Dichloroethene	96	3.466	3.470	-0.004	94	58222	2.00	1.90	
46 1,1,2-Trichloro-1,2,2-trif	151	3.483	3.487	-0.004	97	79903	2.00	1.91	
47 Acetone	43	3.501	3.505	-0.004	39	25083	8.00	7.85	
48 Iodomethane	142	3.640	3.644	-0.004	100	131594	2.00	1.91	
50 Carbon disulfide	76	3.709	3.731	-0.022	96	214216	2.00	1.81	
52 3-Chloro-1-propene	41	3.814	3.818	-0.004	85	137857	2.00	1.94	
53 Methyl acetate	43	3.814	3.818	-0.004	78	101327	10.0	9.79	
54 Methylene Chloride	84	3.936	3.957	-0.021	97	62909	2.00	1.95	
55 2-Methyl-2-propanol	59	4.075	4.062	0.013	91	25764	20.0	24.8	
57 Acrylonitrile	53	4.197	4.201	-0.004	97	53920	20.0	20.1	
58 trans-1,2-Dichloroethene	96	4.232	4.236	-0.004	94	67262	2.00	1.95	
56 Methyl tert-butyl ether	73	4.232	4.236	-0.004	91	113032	2.00	1.93	
59 Hexane	57	4.493	4.514	-0.021	94	113407	2.00	1.83	
60 1,1-Dichloroethane	63	4.684	4.688	-0.004	96	136484	2.00	1.87	
61 Vinyl acetate	43	4.719	4.723	-0.004	96	169021	4.00	3.75	
65 cis-1,2-Dichloroethene	96	5.346	5.367	-0.021	88	67321	2.00	1.94	
67 2-Butanone (MEK)	43	5.363	5.367	-0.004	46	37612	8.00	6.38	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
66 2,2-Dichloropropane	77	5.363	5.385	-0.022	92	161477	2.00	1.91	
71 sec-Butyl Alcohol	45	5.572	5.576	-0.004	96	81308	60.0	60.3	
73 Chlorobromomethane	128	5.642	5.663	-0.021	90	30589	2.00	2.00	
74 Tetrahydrofuran	42	5.712	5.716	-0.004	41	16390	4.00	3.86	
75 Chloroform	83	5.729	5.733	-0.004	96	133676	2.00	1.96	
76 1,1,1-Trichloroethane	97	5.973	5.977	-0.004	97	122948	2.00	1.89	
77 Cyclohexane	56	6.042	6.046	-0.004	92	137225	2.00	1.91	
78 1,1-Dichloropropene	75	6.147	6.168	-0.021	92	109356	2.00	1.88	
79 Carbon tetrachloride	117	6.182	6.186	-0.004	97	114248	2.00	1.89	
80 Isobutyl alcohol	41	6.304	6.290	0.014	93	22070	50.0	46.7	
81 Benzene	78	6.408	6.429	-0.021	97	210215	2.00	1.95	
82 1,2-Dichloroethane	62	6.443	6.447	-0.004	96	65169	2.00	2.00	
84 n-Heptane	43	6.721	6.725	-0.004	97	176712	2.00	1.85	
86 Trichloroethene	95	7.226	7.230	-0.004	97	82244	2.00	1.88	
88 2-Pentanone	43	7.470	7.474	-0.004	96	124028	8.00	7.59	
89 Methylcyclohexane	55	7.487	7.491	-0.004	90	121641	2.00	1.90	
90 1,2-Dichloropropane	63	7.522	7.526	-0.004	96	88743	2.00	2.06	
92 Dibromomethane	93	7.696	7.700	-0.004	91	42931	2.00	2.00	
93 1,4-Dioxane	88	7.714	7.718	-0.004	29	3158	40.0	36.4	
94 Dichlorobromomethane	83	7.888	7.892	-0.004	98	126497	2.00	2.02	
96 2-Chloroethyl vinyl ether	63	8.288	8.292	-0.004	85	12060	2.00	1.57	
97 cis-1,3-Dichloropropene	75	8.497	8.501	-0.004	91	107388	2.00	1.97	
98 4-Methyl-2-pentanone (MIBK)	43	8.723	8.710	0.013	97	125802	8.00	5.81	
99 Toluene	91	8.967	8.971	-0.004	98	237075	2.00	1.92	
100 trans-1,3-Dichloropropene	75	9.281	9.285	-0.004	97	78291	2.00	1.99	
101 Ethyl methacrylate	69	9.420	9.406	0.014	96	70056	2.00	2.09	
102 1,1,2-Trichloroethane	97	9.559	9.546	0.013	66	51927	2.00	2.10	
103 Tetrachloroethene	164	9.768	9.772	-0.004	96	71310	2.00	1.90	
104 1,3-Dichloropropane	76	9.785	9.789	-0.004	95	87035	2.00	2.05	
105 2-Hexanone	43	9.925	9.929	-0.004	98	85245	8.00	6.00	
108 Chlorodibromomethane	129	10.151	10.155	-0.004	91	82411	2.00	2.00	
109 Ethylene Dibromide	107	10.325	10.329	-0.004	97	58280	2.00	2.00	
110 1-Chlorohexane	91	11.109	11.113	-0.004	89	118927	2.00	1.87	
111 Chlorobenzene	112	11.143	11.147	-0.004	89	161425	2.00	1.95	
112 1,1,1,2-Tetrachloroethane	131	11.283	11.287	-0.004	83	77661	2.00	1.94	
113 Ethylbenzene	106	11.317	11.322	-0.005	99	82557	2.00	1.95	
114 m-Xylene & p-Xylene	106	11.492	11.496	-0.004	97	102405	2.00	1.78	
115 o-Xylene	106	12.066	12.070	-0.004	99	100515	2.00	1.99	
116 Styrene	104	12.083	12.088	-0.005	93	160271	2.00	1.97	
117 Bromoform	173	12.345	12.349	-0.004	93	43536	2.00	1.95	
118 Isopropylbenzene	105	12.554	12.558	-0.004	97	305501	2.00	1.94	
120 Cyclohexanone	55	12.693	12.697	-0.004	96	29957	80.0	60.0	
122 Bromobenzene	156	12.937	12.941	-0.004	91	73134	2.00	2.01	
121 1,1,2,2-Tetrachloroethane	83	12.954	12.958	-0.004	91	68821	2.00	2.10	
123 1,2,3-Trichloropropane	110	13.006	12.993	0.013	78	16148	2.00	2.11	
124 trans-1,4-Dichloro-2-buten	53	13.006	13.028	-0.022	67	18311	2.00	2.13	
125 N-Propylbenzene	120	13.076	13.080	-0.004	99	76813	2.00	1.99	
126 2-Chlorotoluene	126	13.180	13.184	-0.004	96	60448	2.00	2.02	
127 1,3,5-Trimethylbenzene	105	13.302	13.289	0.013	94	234990	2.00	1.97	
128 4-Chlorotoluene	126	13.320	13.306	0.014	97	78238	2.00	2.03	
129 tert-Butylbenzene	119	13.668	13.672	-0.004	95	250654	2.00	1.94	
130 1,2,4-Trimethylbenzene	105	13.720	13.724	-0.004	95	221512	2.00	1.96	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
131 sec-Butylbenzene	134	13.911	13.916	-0.005	95	69410	2.00	2.03	
132 1,3-Dichlorobenzene	146	14.033	14.037	-0.004	94	108495	2.00	1.97	
133 4-Isopropyltoluene	119	14.086	14.072	0.014	98	292735	2.00	2.00	
134 1,4-Dichlorobenzene	146	14.138	14.142	-0.004	90	173354	2.00	2.03	
137 n-Butylbenzene	91	14.503	14.507	-0.004	99	295629	2.00	1.92	
138 1,2-Dichlorobenzene	146	14.538	14.542	-0.004	95	117567	2.00	2.03	
139 1,2-Dibromo-3-Chloropropan	157	15.322	15.326	-0.004	82	11040	2.00	2.04	
144 1,2,3-Trichlorobenzene	180	16.523	16.074	0.449	89	56420	2.00	1.56	a
142 Hexachlorobutadiene	225	16.227	16.231	-0.004	96	81678	2.00	2.01	
143 Naphthalene	128	16.297	16.301	-0.004	97	88140	2.00	1.99	
141 1,2,4-Trichlorobenzene	180	16.070	16.527	-0.457	90	79388	2.00	2.34	a
S 151 1,2-Dichloroethene, Total	96				0		4.00	3.89	
S 145 Trihalomethanes, Total	1				0		8.00	7.94	
S 146 Xylenes, Total (URS)	1				0		4.00	3.77	
S 147 Total BTEX	1				0			9.60	
S 148 1,3-Dichloropropene, Total	1				0		4.00	3.96	
S 149 1,2-Dichloroethene, Total	1				0		4.00	3.89	
S 150 Xylenes, Total	106				0		4.00	3.77	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MV-568718-D_00002	Amount Added: 1.00	Units: uL
MV-Main A_00022	Amount Added: 1.00	Units: uL
MV-Gas/Ket A_00033	Amount Added: 1.00	Units: uL
MV-2cleve+AVA_00009	Amount Added: 1.00	Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2951.D

Injection Date: 28-May-2015 01:03:30

Instrument ID: VMS_H

Operator ID: BERGERB

Lims ID: ic

Worklist Smp#: 11

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

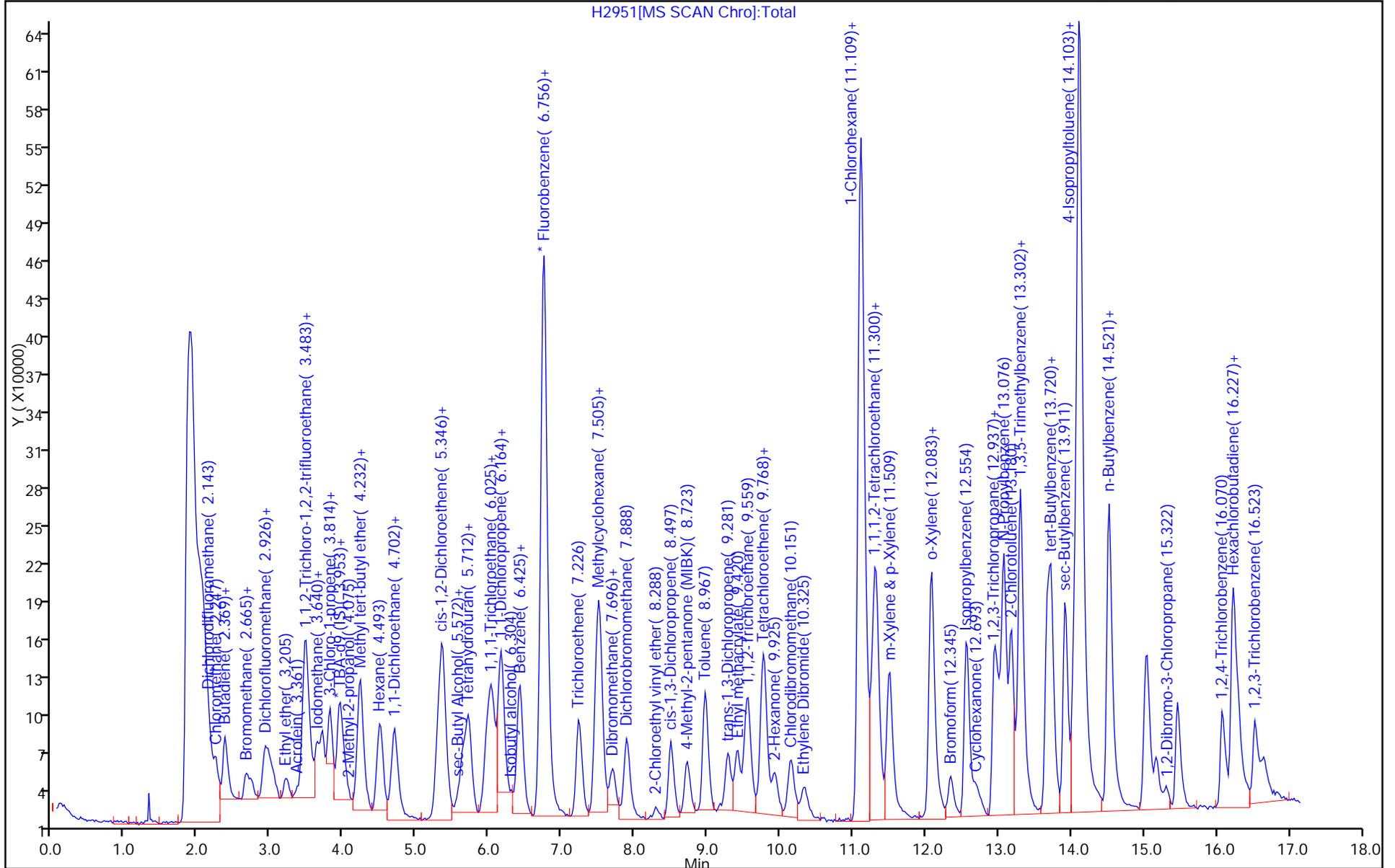
ALS Bottle#: 5

Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



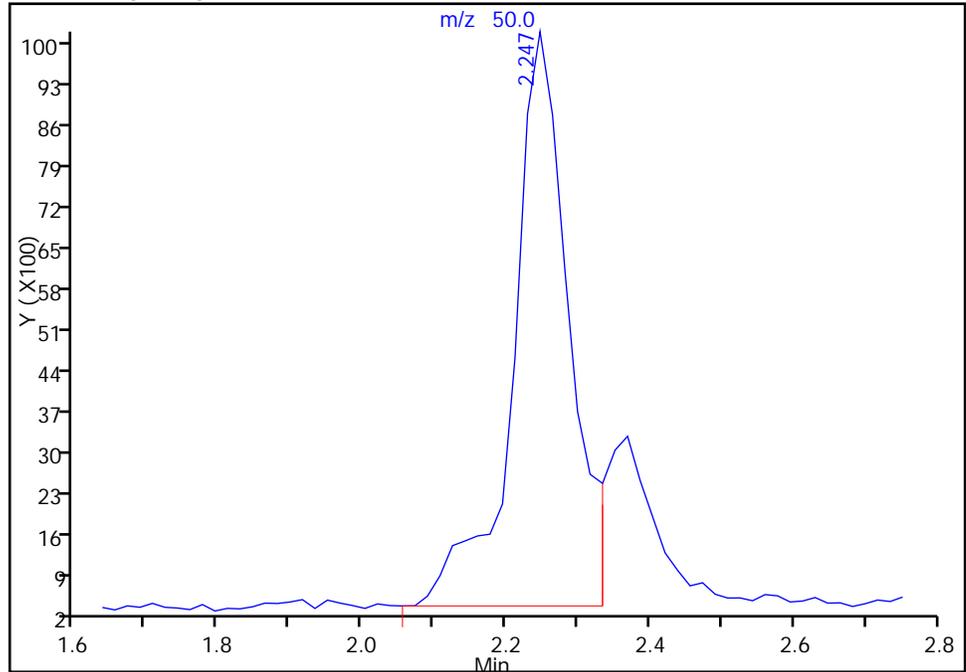
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2951.D
Injection Date: 28-May-2015 01:03:30 Instrument ID: VMS_H
Lims ID: ic
Client ID:
Operator ID: BERGERB ALS Bottle#: 5 Worklist Smp#: 11
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

30 Chloromethane, CAS: 74-87-3

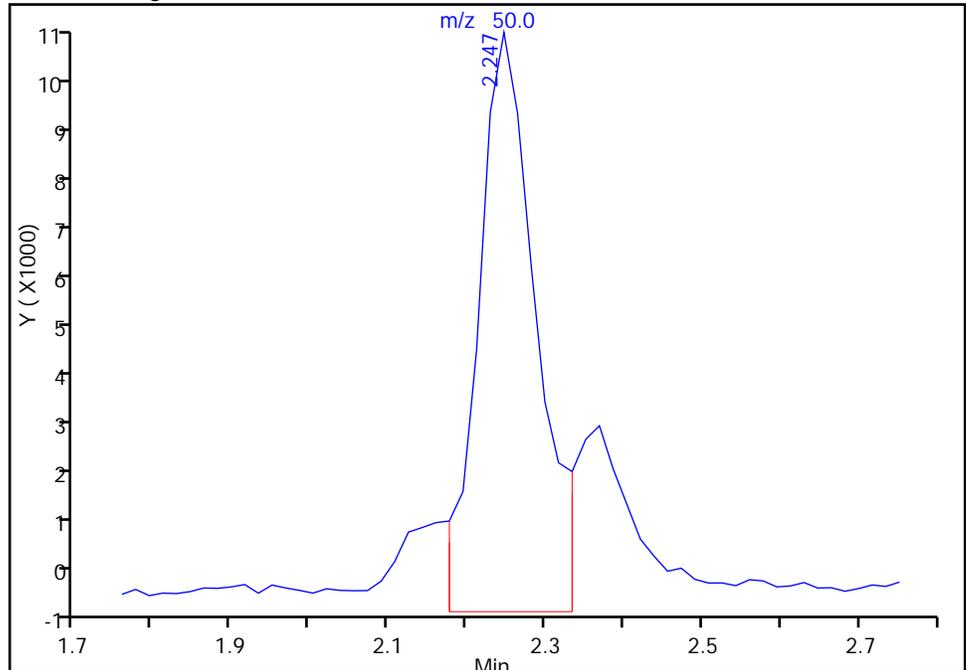
RT: 2.25
Area: 53646
Amount: 1.676096
Amount Units: ug/l

Processing Integration Results



RT: 2.25
Area: 53286
Amount: 1.666187
Amount Units: ug/l

Manual Integration Results



Reviewer: wickhamt, 28-May-2015 06:22:57
Audit Action: Assigned New Baseline
Audit Reason: Shouldering

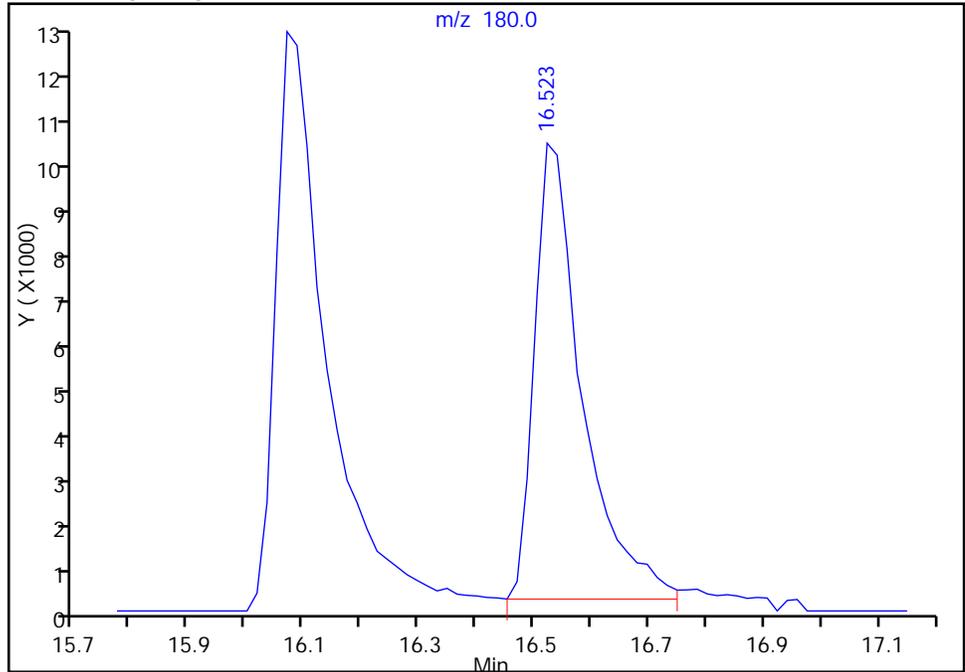
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2951.D
Injection Date: 28-May-2015 01:03:30 Instrument ID: VMS_H
Lims ID: ic
Client ID:
Operator ID: BERGERB ALS Bottle#: 5 Worklist Smp#: 11
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

141 1,2,4-Trichlorobenzene, CAS: 120-82-1

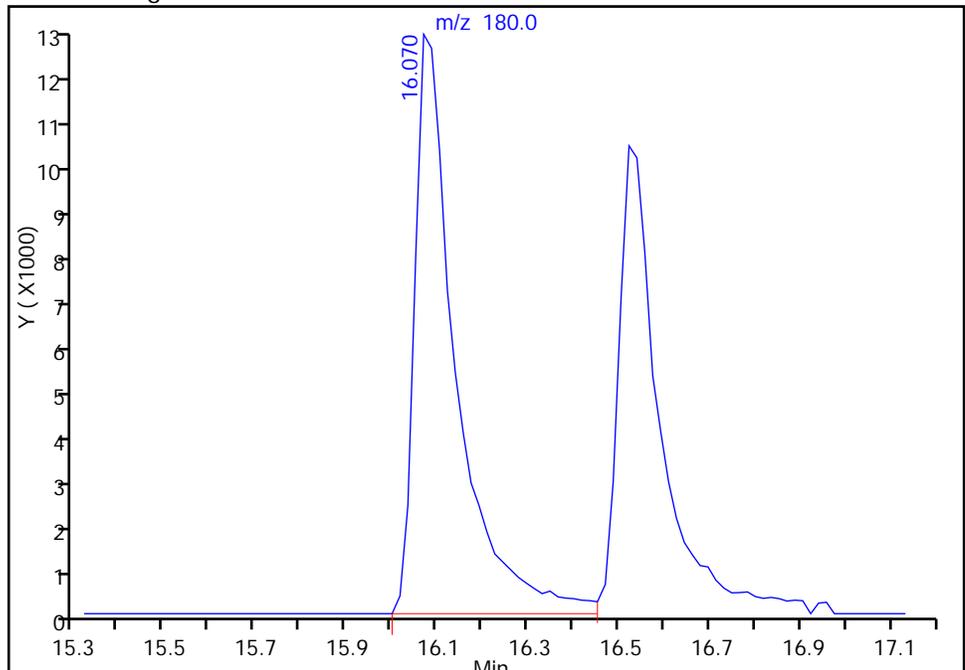
RT: 16.52
Area: 56420
Amount: 1.745219
Amount Units: ug/l

Processing Integration Results



RT: 16.07
Area: 79388
Amount: 2.337079
Amount Units: ug/l

Manual Integration Results



Reviewer: moanm, 02-Jun-2015 08:04:02
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

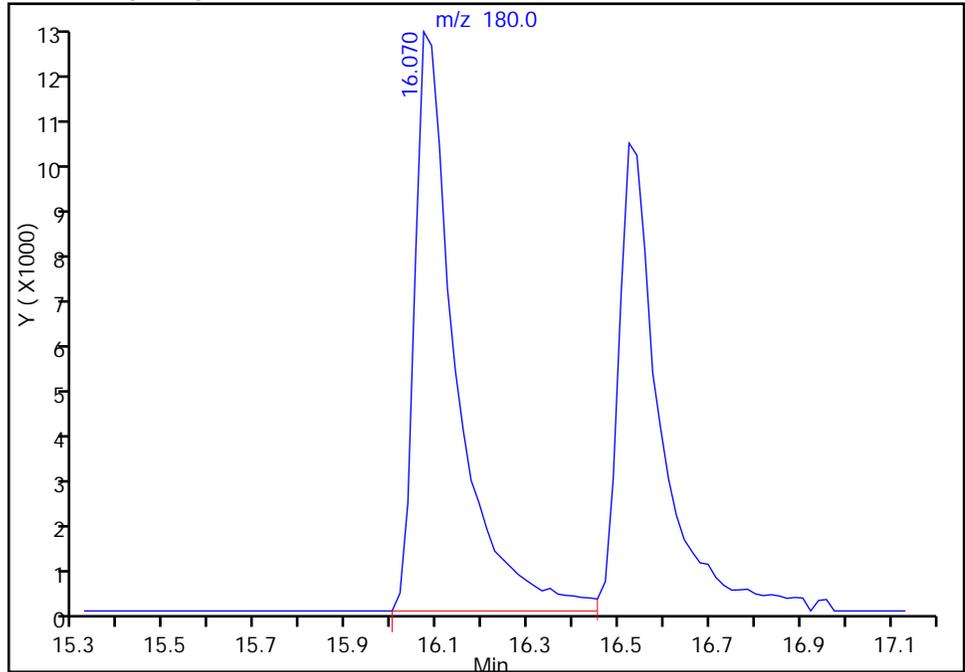
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2951.D
Injection Date: 28-May-2015 01:03:30 Instrument ID: VMS_H
Lims ID: ic
Client ID:
Operator ID: BERGERB ALS Bottle#: 5 Worklist Smp#: 11
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

144 1,2,3-Trichlorobenzene, CAS: 87-61-6

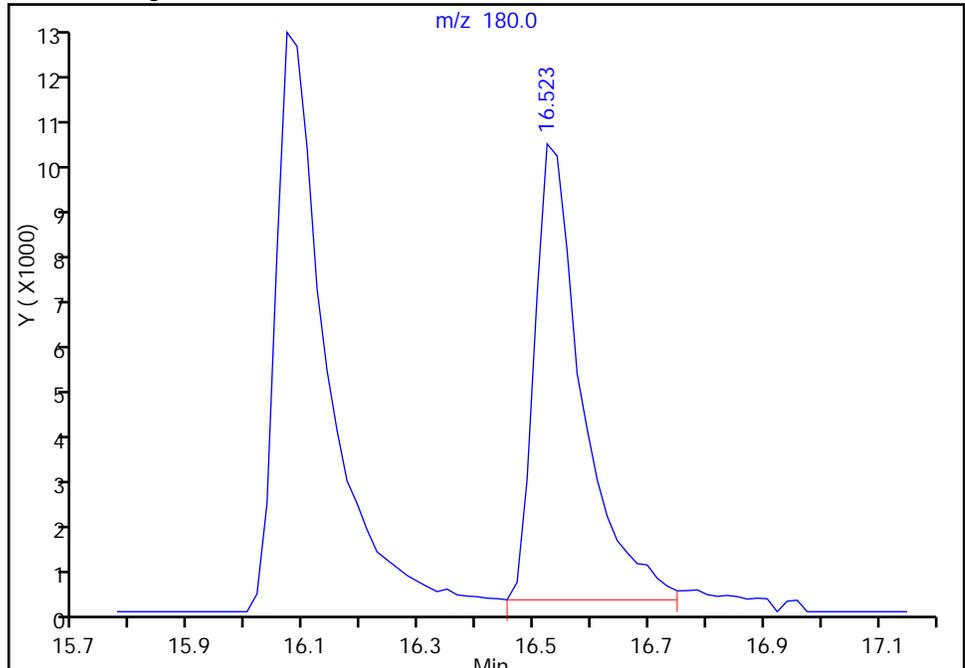
RT: 16.07
Area: 79388
Amount: 2.133564
Amount Units: ug/l

Processing Integration Results



RT: 16.52
Area: 56420
Amount: 1.559763
Amount Units: ug/l

Manual Integration Results



Reviewer: moanm, 02-Jun-2015 08:04:02
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2952.D
 Lims ID: ic
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 28-May-2015 01:25:30 ALS Bottle#: 6 Worklist Smp#: 12
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ic
 Operator ID: BERGERB Instrument ID: VMS_H
 Sublist: chrom-AQ_VMSH_8260*sub99
 Method: \\Denchrom\ChromData\VMS_H\20150528-35452.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 02-Jun-2015 08:04:17 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK030

First Level Reviewer: wickhamt

Date: 28-May-2015 06:24:03

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.987	3.974	0.013	96	195219	250.0	250.0	
* 2 Fluorobenzene	96	6.755	6.759	-0.004	95	1029988	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.108	11.094	0.014	93	227484	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.120	14.106	0.014	97	377031	12.5	12.5	
28 Dichlorodifluoromethane	85	2.159	2.164	-0.005	98	247178	5.00	5.03	
30 Chloromethane	50	2.264	2.269	-0.005	100	162089	5.00	5.05	
31 Butadiene	54	2.368	2.373	-0.005	0	127553	NC	NC	
32 Vinyl chloride	62	2.386	2.390	-0.004	97	159681	5.00	5.09	
35 Bromomethane	94	2.682	2.669	0.013	91	132730	5.00	5.10	
36 Chloroethane	64	2.751	2.756	-0.005	99	103163	5.00	5.41	
37 Dichlorofluoromethane	67	2.925	2.930	-0.005	99	365019	5.00	5.28	
38 Trichlorofluoromethane	101	2.978	2.982	-0.004	99	321455	5.00	5.20	
40 Ethyl ether	59	3.221	3.226	-0.005	94	84807	5.00	5.19	
44 Acrolein	56	3.361	3.365	-0.004	99	59073	50.0	52.5	
45 1,1-Dichloroethene	96	3.465	3.470	-0.005	94	159253	5.00	5.18	
46 1,1,2-Trichloro-1,2,2-trif	151	3.500	3.487	0.013	97	219337	5.00	5.23	
47 Acetone	43	3.517	3.505	0.012	41	62422	20.0	19.5	
48 Iodomethane	142	3.639	3.644	-0.005	99	351110	5.00	5.07	
50 Carbon disulfide	76	3.726	3.731	-0.005	99	599818	5.00	5.06	
52 3-Chloro-1-propene	41	3.813	3.818	-0.005	92	363829	5.00	5.10	
53 Methyl acetate	43	3.831	3.818	0.013	98	259179	25.0	25.0	
54 Methylene Chloride	84	3.952	3.957	-0.005	98	146368	5.00	5.15	
55 2-Methyl-2-propanol	59	4.074	4.062	0.012	96	50634	50.0	51.2	
57 Acrylonitrile	53	4.214	4.201	0.013	99	132956	50.0	49.5	
58 trans-1,2-Dichloroethene	96	4.231	4.236	-0.005	94	179063	5.00	5.17	
56 Methyl tert-butyl ether	73	4.231	4.236	-0.005	86	296103	5.00	5.05	
59 Hexane	57	4.510	4.514	-0.004	95	314081	5.00	5.15	
60 1,1-Dichloroethane	63	4.684	4.688	-0.004	96	364528	5.00	4.99	
61 Vinyl acetate	43	4.718	4.723	-0.005	96	489475	10.0	10.8	
65 cis-1,2-Dichloroethene	96	5.363	5.367	-0.004	88	175089	5.00	5.02	
67 2-Butanone (MEK)	43	5.363	5.367	-0.004	50	115653	20.0	19.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
66 2,2-Dichloropropane	77	5.380	5.385	-0.005	90	357591	5.00	5.16	
71 sec-Butyl Alcohol	45	5.589	5.576	0.013	97	188288	150.0	134.7	
73 Chlorobromomethane	128	5.659	5.663	-0.004	89	77430	5.00	5.06	
74 Tetrahydrofuran	42	5.711	5.716	-0.005	40	41570	10.0	9.77	
75 Chloroform	83	5.728	5.733	-0.005	96	348497	5.00	5.11	
76 1,1,1-Trichloroethane	97	5.972	5.977	-0.005	97	334275	5.00	5.13	
77 Cyclohexane	56	6.042	6.046	-0.004	97	370277	5.00	5.15	
78 1,1-Dichloropropene	75	6.163	6.168	-0.005	91	295185	5.00	5.05	
79 Carbon tetrachloride	117	6.181	6.186	-0.005	97	312599	5.00	5.16	
80 Isobutyl alcohol	41	6.285	6.290	-0.005	94	58888	125.0	120.3	
81 Benzene	78	6.425	6.429	-0.004	97	549811	5.00	5.10	
82 1,2-Dichloroethane	62	6.442	6.447	-0.005	96	165237	5.00	5.07	
84 n-Heptane	43	6.721	6.725	-0.004	97	498964	5.00	5.22	
86 Trichloroethene	95	7.225	7.230	-0.005	97	227548	5.00	5.19	
88 2-Pentanone	43	7.469	7.474	-0.005	95	317235	20.0	19.4	
89 Methylcyclohexane	55	7.504	7.491	0.013	89	331927	5.00	5.18	
90 1,2-Dichloropropane	63	7.539	7.526	0.013	96	215066	5.00	4.99	
92 Dibromomethane	93	7.696	7.700	-0.004	91	107201	5.00	4.99	
93 1,4-Dioxane	88	7.748	7.718	0.030	30	11405	100.0	100.1	
94 Dichlorobromomethane	83	7.887	7.892	-0.005	98	314609	5.00	5.02	
96 2-Chloroethyl vinyl ether	63	8.287	8.292	-0.005	89	37567	5.00	4.88	
97 cis-1,3-Dichloropropene	75	8.496	8.501	-0.005	91	276201	5.00	5.15	
98 4-Methyl-2-pentanone (MIBK)	43	8.723	8.710	0.013	97	425851	20.0	19.5	
99 Toluene	91	8.966	8.971	-0.005	97	621009	5.00	5.02	
100 trans-1,3-Dichloropropene	75	9.280	9.285	-0.005	98	203021	5.00	5.14	
101 Ethyl methacrylate	69	9.419	9.406	0.013	95	165619	5.00	5.03	
102 1,1,2-Trichloroethane	97	9.541	9.546	-0.005	94	124206	5.00	5.01	
103 Tetrachloroethene	164	9.767	9.772	-0.005	96	191028	5.00	5.16	
104 1,3-Dichloropropane	76	9.785	9.789	-0.004	94	205450	5.00	4.93	
105 2-Hexanone	43	9.924	9.929	-0.005	98	277410	20.0	18.7	
108 Chlorodibromomethane	129	10.150	10.155	-0.005	90	197422	5.00	4.86	
109 Ethylene Dibromide	107	10.324	10.329	-0.005	99	143966	5.00	5.03	
110 1-Chlorohexane	91	11.108	11.113	-0.005	91	315700	5.00	5.05	
111 Chlorobenzene	112	11.143	11.147	-0.004	90	413665	5.00	5.07	
112 1,1,1,2-Tetrachloroethane	131	11.282	11.287	-0.005	93	201252	5.00	5.11	
113 Ethylbenzene	106	11.317	11.322	-0.005	99	213988	5.00	5.14	
114 m-Xylene & p-Xylene	106	11.508	11.496	0.012	98	290550	5.00	5.14	
115 o-Xylene	106	12.065	12.070	-0.005	99	253986	5.00	5.12	
116 Styrene	104	12.083	12.088	-0.005	93	413563	5.00	5.16	
117 Bromoform	173	12.344	12.349	-0.005	93	112580	5.00	5.14	
118 Isopropylbenzene	105	12.570	12.558	0.012	97	812395	5.00	5.03	
120 Cyclohexanone	55	12.692	12.697	-0.005	95	94188	200.0	188.0	
122 Bromobenzene	156	12.953	12.941	0.012	94	189284	5.00	5.08	
121 1,1,2,2-Tetrachloroethane	83	12.953	12.958	-0.005	94	162847	5.00	4.84	
123 1,2,3-Trichloropropane	110	13.005	12.993	0.012	79	37836	5.00	4.81	
124 trans-1,4-Dichloro-2-buten	53	13.023	13.028	-0.005	70	44139	5.00	5.00	
125 N-Propylbenzene	120	13.075	13.080	-0.005	99	201896	5.00	5.11	
126 2-Chlorotoluene	126	13.180	13.184	-0.004	96	150706	5.00	4.92	
127 1,3,5-Trimethylbenzene	105	13.301	13.289	0.012	94	610567	5.00	5.00	
128 4-Chlorotoluene	126	13.319	13.306	0.013	98	193360	5.00	4.88	
129 tert-Butylbenzene	119	13.667	13.672	-0.005	95	664399	5.00	5.01	
130 1,2,4-Trimethylbenzene	105	13.719	13.724	-0.005	96	580572	5.00	5.00	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
131 sec-Butylbenzene	134	13.928	13.916	0.012	95	177196	5.00	5.06	
132 1,3-Dichlorobenzene	146	14.050	14.037	0.013	97	276824	5.00	4.89	
133 4-Isopropyltoluene	119	14.085	14.072	0.013	98	767309	5.00	5.10	
134 1,4-Dichlorobenzene	146	14.137	14.142	-0.005	93	443692	5.00	5.08	
137 n-Butylbenzene	91	14.503	14.507	-0.004	99	798058	5.00	5.05	
138 1,2-Dichlorobenzene	146	14.537	14.542	-0.005	96	298057	5.00	5.02	
139 1,2-Dibromo-3-Chloropropan	157	15.304	15.326	-0.022	79	27832	5.00	5.02	
144 1,2,3-Trichlorobenzene	180	16.540	16.074	0.466	94	158675	5.00	4.07	a
142 Hexachlorobutadiene	225	16.226	16.231	-0.005	96	209088	5.00	5.03	
143 Naphthalene	128	16.296	16.301	-0.005	98	221754	5.00	4.88	
141 1,2,4-Trichlorobenzene	180	16.087	16.527	-0.440	94	201768	5.00	5.59	a
S 151 1,2-Dichloroethene, Total	96				0		10.0	10.2	
S 145 Trihalomethanes, Total	1				0		20.0	20.1	
S 146 Xylenes, Total (URS)	1				0		10.0	10.3	
S 147 Total BTEX	1				0			25.5	
S 148 1,3-Dichloropropene, Total	1				0		10.0	10.3	
S 149 1,2-Dichloroethene, Total	1				0		10.0	10.2	
S 150 Xylenes, Total	106				0		10.0	10.3	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

a - User Assigned ID

Reagents:

MV-568718-D_00002	Amount Added: 1.00	Units: uL
MV-Main A_00022	Amount Added: 2.50	Units: uL
MV-Gas/Ket A_00033	Amount Added: 2.50	Units: uL
MV-2cleve+AVA_00009	Amount Added: 2.50	Units: uL

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2952.D

Injection Date: 28-May-2015 01:25:30

Instrument ID: VMS_H

Operator ID: BERGERB

Lims ID: ic

Worklist Smp#: 12

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

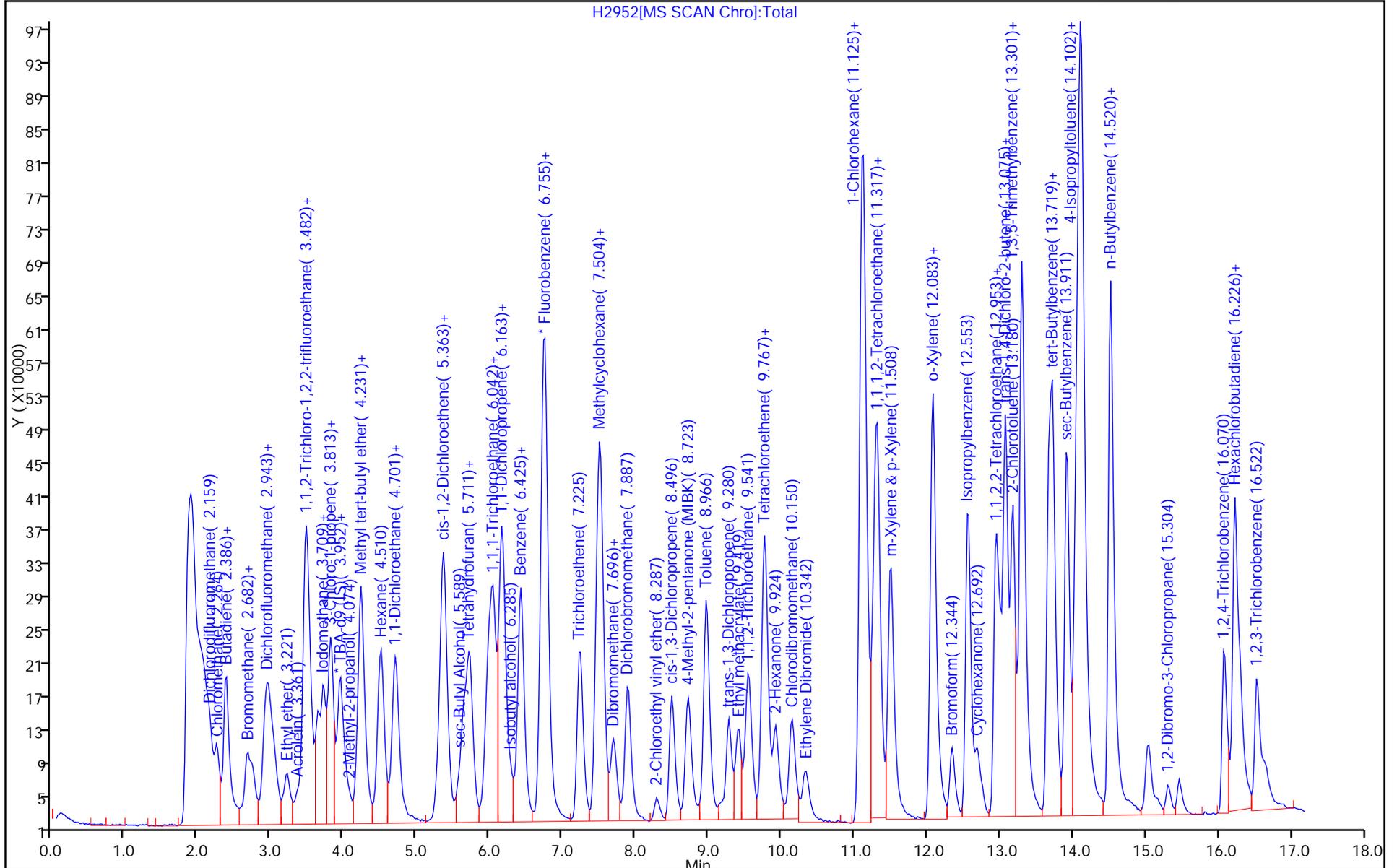
ALS Bottle#: 6

Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



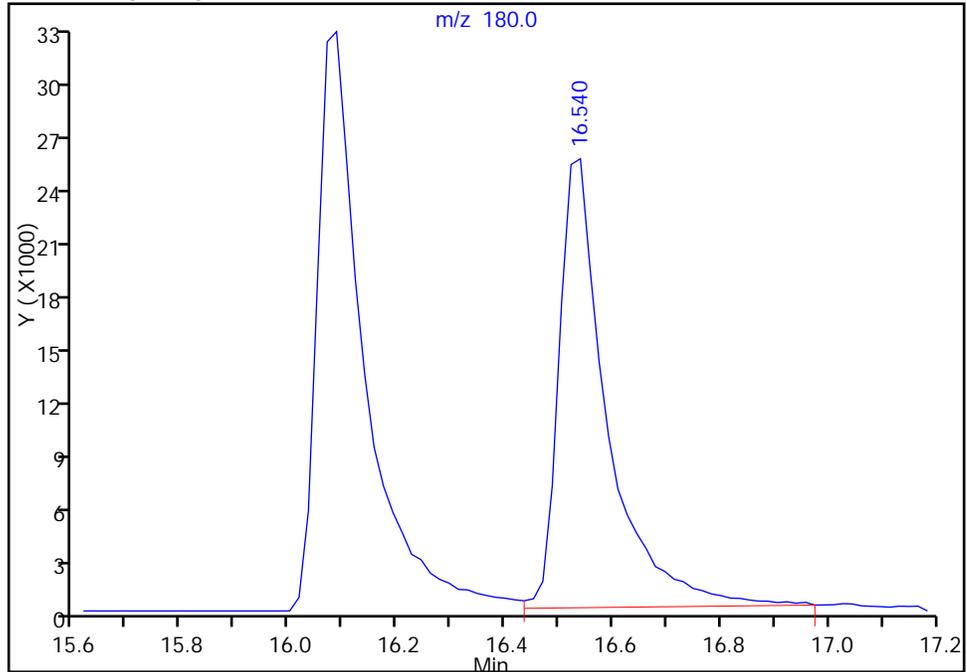
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2952.D
Injection Date: 28-May-2015 01:25:30 Instrument ID: VMS_H
Lims ID: ic
Client ID:
Operator ID: BERGERB ALS Bottle#: 6 Worklist Smp#: 12
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

141 1,2,4-Trichlorobenzene, CAS: 120-82-1

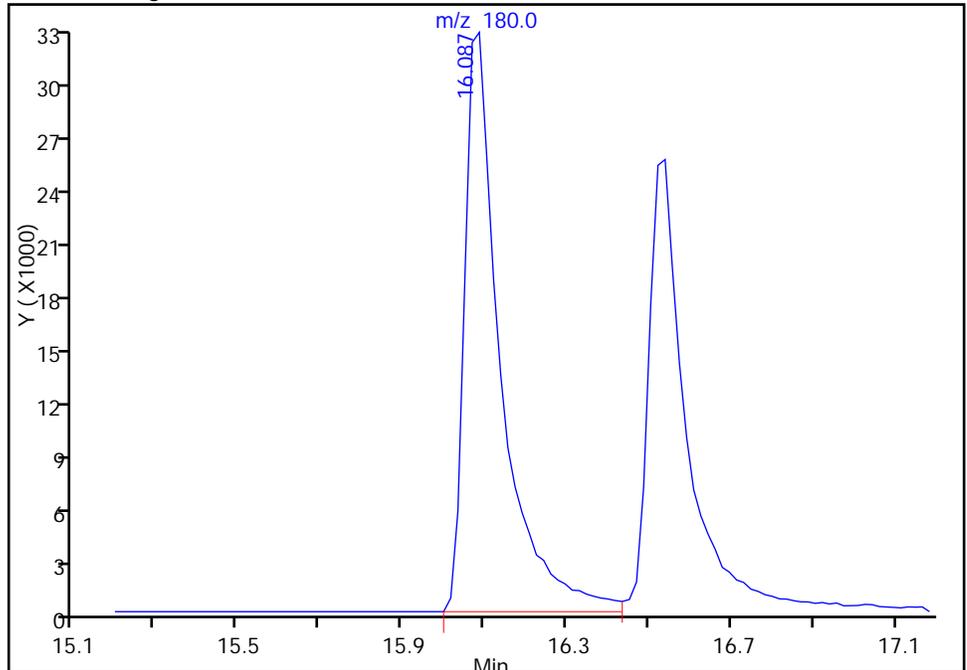
RT: 16.54
Area: 158675
Amount: 4.554130
Amount Units: ug/l

Processing Integration Results



RT: 16.09
Area: 201768
Amount: 5.593289
Amount Units: ug/l

Manual Integration Results



Reviewer: moanm, 02-Jun-2015 08:04:17
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

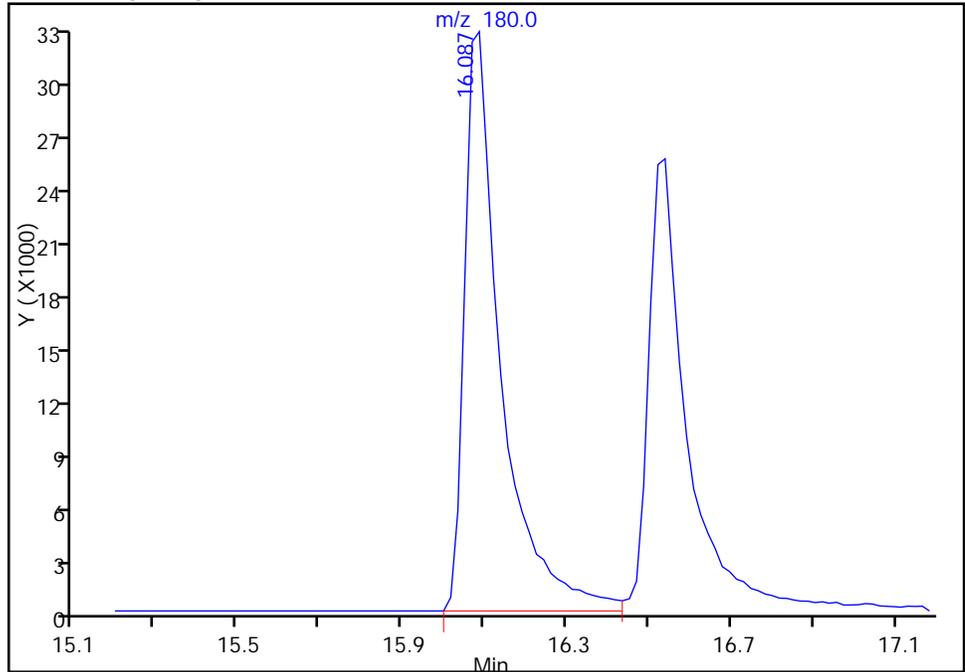
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2952.D
Injection Date: 28-May-2015 01:25:30 Instrument ID: VMS_H
Lims ID: ic
Client ID:
Operator ID: BERGERB ALS Bottle#: 6 Worklist Smp#: 12
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

144 1,2,3-Trichlorobenzene, CAS: 87-61-6

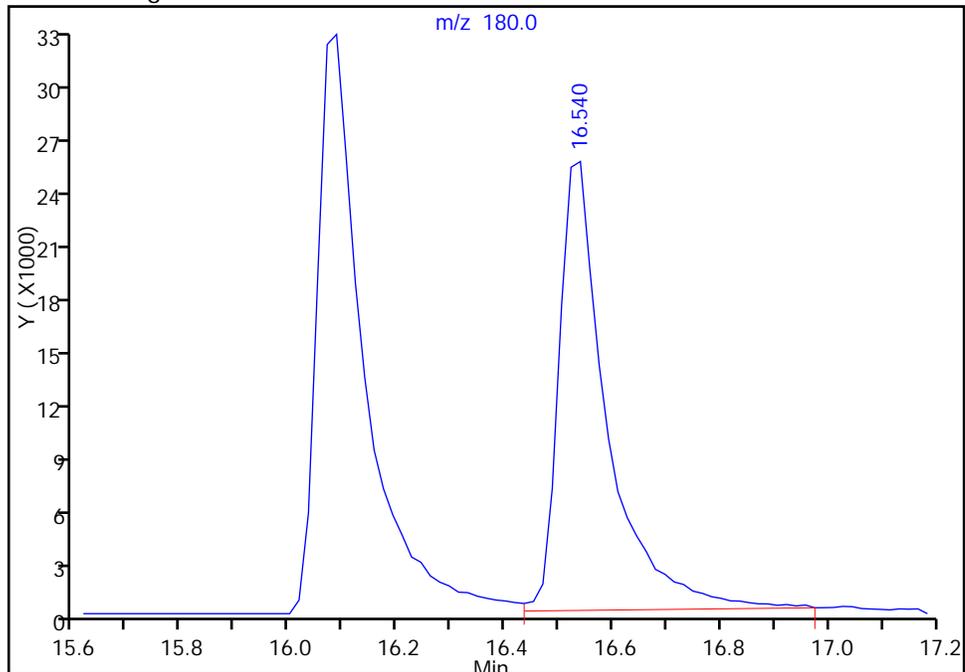
RT: 16.09
Area: 201768
Amount: 5.061159
Amount Units: ug/l

Processing Integration Results



RT: 16.54
Area: 158675
Amount: 4.074146
Amount Units: ug/l

Manual Integration Results



Reviewer: moanm, 02-Jun-2015 08:04:17
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2953.D
 Lims ID: ic
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 28-May-2015 01:48:30 ALS Bottle#: 7 Worklist Smp#: 13
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ic
 Operator ID: BERGERB Instrument ID: VMS_H
 Sublist: chrom-AQ_VMSH_8260*sub99
 Method: \\Denchrom\ChromData\VMS_H\20150528-35452.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 02-Jun-2015 08:04:33 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK030

First Level Reviewer: wickhamt

Date: 28-May-2015 06:16:24

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.975	3.975	0.000	97	213064	250.0	250.0	
* 2 Fluorobenzene	96	6.760	6.760	0.000	97	1060270	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.113	11.113	0.000	93	230984	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.107	14.107	0.000	97	388500	12.5	12.5	
28 Dichlorodifluoromethane	85	2.164	2.164	0.000	98	490322	10.0	9.60	
30 Chloromethane	50	2.269	2.269	0.000	98	338017	10.0	10.2	
31 Butadiene	54	2.373	2.373	0.000	0	261973	NC	NC	
32 Vinyl chloride	62	2.390	2.390	0.000	98	329568	10.0	10.2	
35 Bromomethane	94	2.669	2.669	0.000	91	285208	10.0	10.6	
36 Chloroethane	64	2.756	2.756	0.000	100	210596	10.0	10.7	
37 Dichlorofluoromethane	67	2.930	2.930	0.000	99	766394	10.0	10.8	
38 Trichlorofluoromethane	101	2.982	2.982	0.000	99	675996	10.0	10.6	
40 Ethyl ether	59	3.226	3.226	0.000	93	171739	10.0	10.2	
44 Acrolein	56	3.365	3.365	0.000	98	113181	100.0	97.6	
45 1,1-Dichloroethene	96	3.470	3.470	0.000	94	321941	10.0	10.2	
46 1,1,2-Trichloro-1,2,2-trif	151	3.487	3.487	0.000	98	443684	10.0	10.3	
47 Acetone	43	3.505	3.505	0.000	97	132884	40.0	40.3	
48 Iodomethane	142	3.644	3.644	0.000	99	723408	10.0	10.2	
50 Carbon disulfide	76	3.731	3.731	0.000	100	1216758	10.0	9.97	
52 3-Chloro-1-propene	41	3.818	3.818	0.000	91	733581	10.0	9.98	
53 Methyl acetate	43	3.818	3.818	0.000	97	568374	50.0	53.2	
54 Methylene Chloride	84	3.957	3.957	0.000	98	289949	10.0	10.3	
55 2-Methyl-2-propanol	59	4.062	4.062	0.000	95	103361	100.0	99.7	
57 Acrylonitrile	53	4.201	4.201	0.000	97	286517	100.0	103.7	
58 trans-1,2-Dichloroethene	96	4.236	4.236	0.000	95	351195	10.0	9.86	
56 Methyl tert-butyl ether	73	4.236	4.236	0.000	96	620688	10.0	10.3	
59 Hexane	57	4.514	4.514	0.000	95	656745	10.0	10.6	
60 1,1-Dichloroethane	63	4.688	4.688	0.000	96	742521	10.0	9.87	
61 Vinyl acetate	43	4.723	4.723	0.000	96	959261	20.0	20.6	
65 cis-1,2-Dichloroethene	96	5.367	5.367	0.000	88	367183	10.0	10.2	
67 2-Butanone (MEK)	43	5.367	5.367	0.000	96	271060	40.0	44.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
66 2,2-Dichloropropane	77	5.385	5.385	0.000	91	676578	10.0	10.1	
71 sec-Butyl Alcohol	45	5.576	5.576	0.000	96	424147	300.0	278.0	
73 Chlorobromomethane	128	5.663	5.663	0.000	89	163111	10.0	10.4	
74 Tetrahydrofuran	42	5.716	5.716	0.000	94	91342	20.0	20.9	
75 Chloroform	83	5.733	5.733	0.000	96	703605	10.0	10.0	
76 1,1,1-Trichloroethane	97	5.977	5.977	0.000	96	682150	10.0	10.2	
77 Cyclohexane	56	6.046	6.046	0.000	97	759284	10.0	10.3	
78 1,1-Dichloropropene	75	6.168	6.168	0.000	92	587910	10.0	9.78	
79 Carbon tetrachloride	117	6.186	6.186	0.000	98	634790	10.0	10.2	
80 Isobutyl alcohol	41	6.290	6.290	0.000	91	133112	250.0	249.1	
81 Benzene	78	6.429	6.429	0.000	98	1127346	10.0	10.1	
82 1,2-Dichloroethane	62	6.447	6.447	0.000	96	340868	10.0	10.2	
84 n-Heptane	43	6.725	6.725	0.000	97	1009732	10.0	10.3	
86 Trichloroethene	95	7.230	7.230	0.000	97	465659	10.0	10.3	
88 2-Pentanone	43	7.474	7.474	0.000	96	715858	40.0	42.4	
89 Methylcyclohexane	55	7.491	7.491	0.000	90	687055	10.0	10.4	
90 1,2-Dichloropropane	63	7.526	7.526	0.000	87	443299	10.0	10.0	
92 Dibromomethane	93	7.700	7.700	0.000	92	221961	10.0	10.0	
93 1,4-Dioxane	88	7.718	7.718	0.000	30	24744	200.0	197.9	
94 Dichlorobromomethane	83	7.892	7.892	0.000	98	672865	10.0	10.4	
96 2-Chloroethyl vinyl ether	63	8.292	8.292	0.000	88	74647	10.0	9.41	
97 cis-1,3-Dichloropropene	75	8.501	8.501	0.000	91	571072	10.0	10.5	
98 4-Methyl-2-pentanone (MIBK)	43	8.710	8.710	0.000	97	1002764	40.0	44.5	
99 Toluene	91	8.971	8.971	0.000	97	1267160	10.0	9.95	
100 trans-1,3-Dichloropropene	75	9.285	9.285	0.000	99	414785	10.0	10.2	
101 Ethyl methacrylate	69	9.406	9.406	0.000	96	351571	10.0	10.5	
102 1,1,2-Trichloroethane	97	9.546	9.546	0.000	93	248293	10.0	9.73	
103 Tetrachloroethene	164	9.772	9.772	0.000	95	395487	10.0	10.5	
104 1,3-Dichloropropane	76	9.789	9.789	0.000	95	440887	10.0	10.4	
105 2-Hexanone	43	9.929	9.929	0.000	98	653257	40.0	42.6	
108 Chlorodibromomethane	129	10.155	10.155	0.000	90	424072	10.0	10.3	
109 Ethylene Dibromide	107	10.329	10.329	0.000	98	309647	10.0	10.7	
110 1-Chlorohexane	91	11.113	11.113	0.000	92	633113	10.0	9.97	
111 Chlorobenzene	112	11.147	11.147	0.000	87	859727	10.0	10.4	
112 1,1,1,2-Tetrachloroethane	131	11.287	11.287	0.000	94	419142	10.0	10.5	
113 Ethylbenzene	106	11.322	11.322	0.000	99	449228	10.0	10.6	
114 m-Xylene & p-Xylene	106	11.496	11.496	0.000	97	601905	10.0	10.5	
115 o-Xylene	106	12.070	12.070	0.000	99	528399	10.0	10.5	
116 Styrene	104	12.088	12.088	0.000	93	858871	10.0	10.5	
117 Bromoform	173	12.349	12.349	0.000	94	243755	10.0	11.0	
118 Isopropylbenzene	105	12.558	12.558	0.000	97	1680664	10.0	10.1	
120 Cyclohexanone	55	12.697	12.697	0.000	98	223269	400.0	436.6	
122 Bromobenzene	156	12.941	12.941	0.000	94	397495	10.0	10.4	
121 1,1,2,2-Tetrachloroethane	83	12.958	12.958	0.000	93	350506	10.0	10.1	
123 1,2,3-Trichloropropane	110	12.993	12.993	0.000	82	79592	10.0	9.82	
124 trans-1,4-Dichloro-2-buten	53	13.028	13.028	0.000	68	86189	10.0	9.48	
125 N-Propylbenzene	120	13.080	13.080	0.000	99	412525	10.0	10.1	
126 2-Chlorotoluene	126	13.184	13.184	0.000	96	320058	10.0	10.1	
127 1,3,5-Trimethylbenzene	105	13.289	13.289	0.000	94	1267667	10.0	10.1	
128 4-Chlorotoluene	126	13.306	13.306	0.000	98	412960	10.0	10.1	
129 tert-Butylbenzene	119	13.672	13.672	0.000	94	1369653	10.0	10.0	
130 1,2,4-Trimethylbenzene	105	13.724	13.724	0.000	97	1206077	10.0	10.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
131 sec-Butylbenzene	134	13.916	13.916	0.000	95	365299	10.0	10.1	
132 1,3-Dichlorobenzene	146	14.037	14.037	0.000	96	591386	10.0	10.1	
133 4-Isopropyltoluene	119	14.072	14.072	0.000	98	1595405	10.0	10.3	
134 1,4-Dichlorobenzene	146	14.142	14.142	0.000	93	897375	10.0	9.96	
137 n-Butylbenzene	91	14.507	14.507	0.000	99	1632647	10.0	10.0	
138 1,2-Dichlorobenzene	146	14.542	14.542	0.000	96	626018	10.0	10.2	
139 1,2-Dibromo-3-Chloropropan	157	15.326	15.326	0.000	77	61145	10.0	10.7	
144 1,2,3-Trichlorobenzene	180	16.527	16.527	0.000	93	333902	10.0	9.55	a
142 Hexachlorobutadiene	225	16.231	16.231	0.000	97	438309	10.0	10.2	
143 Naphthalene	128	16.301	16.301	0.000	98	486464	10.0	10.4	
141 1,2,4-Trichlorobenzene	180	16.074	16.074	0.000	94	429478	10.0	11.1	a
S 151 1,2-Dichloroethene, Total	96				0		20.0	20.1	
S 145 Trihalomethanes, Total	1				0		40.0	41.7	
S 146 Xylenes, Total (URS)	1				0		20.0	21.0	
S 148 1,3-Dichloropropene, Total	1				0		20.0	20.7	
S 149 1,2-Dichloroethene, Total	1				0		20.0	20.1	
S 150 Xylenes, Total	106				0		20.0	21.0	

QC Flag Legend

Processing Flags

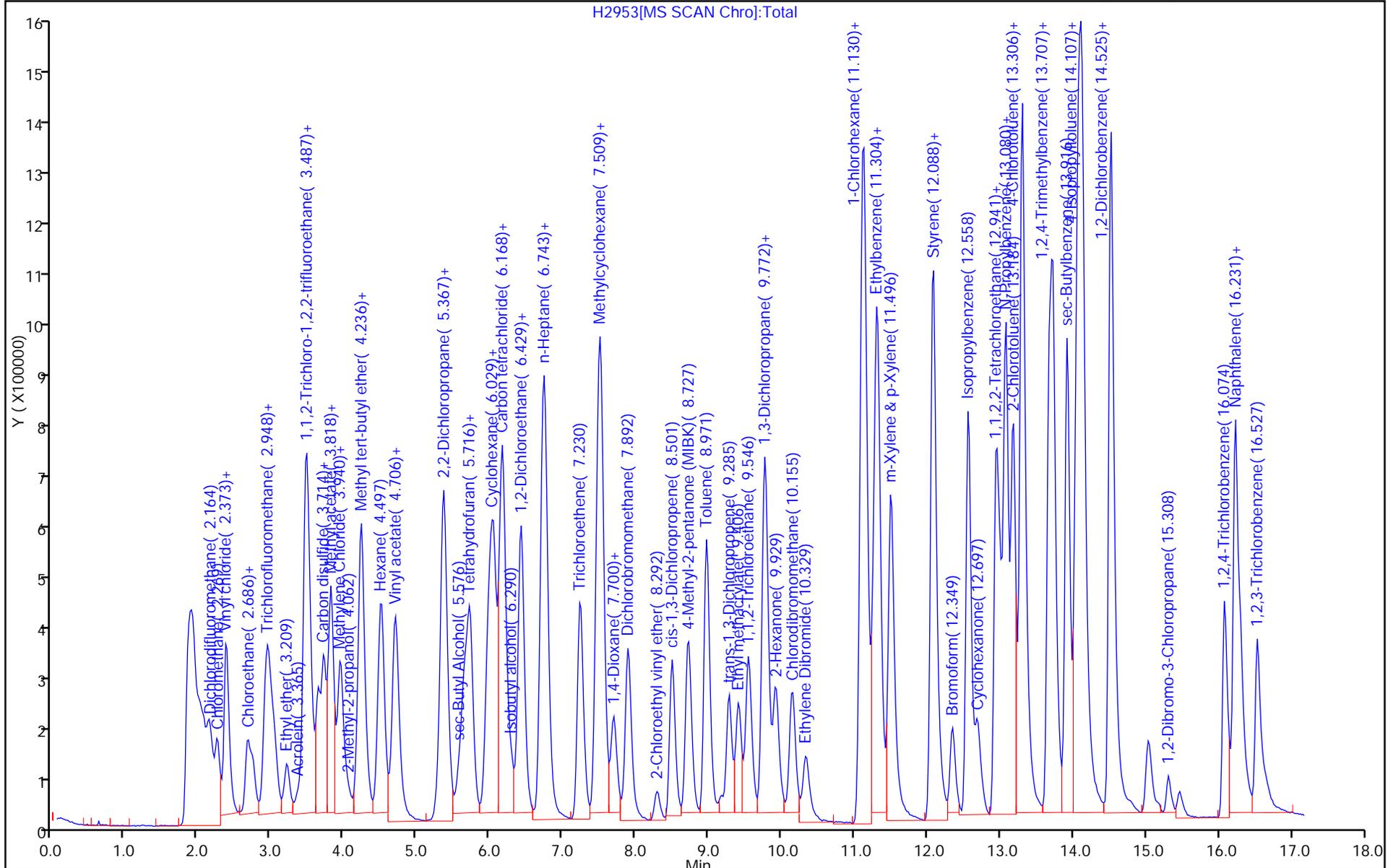
NC - Not Calibrated

Review Flags

a - User Assigned ID

Reagents:

MV-568718-D_00002	Amount Added: 1.00	Units: uL
MV-Main A_00022	Amount Added: 5.00	Units: uL
MV-Gas/Ket A_00033	Amount Added: 5.00	Units: uL
MV-2cleve+AVA_00009	Amount Added: 5.00	Units: uL



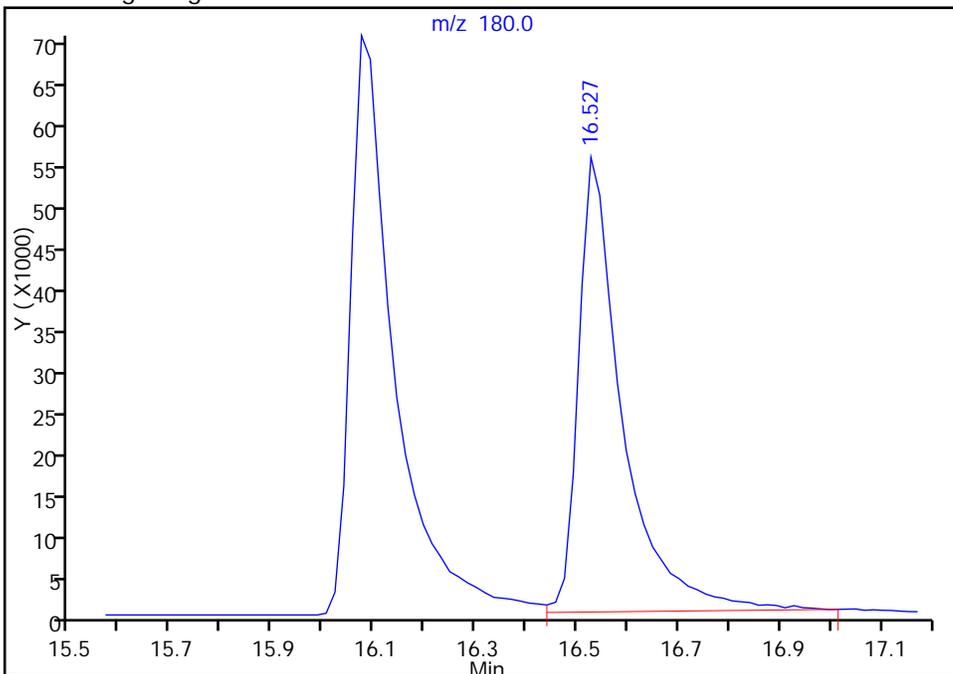
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2953.D
Injection Date: 28-May-2015 01:48:30 Instrument ID: VMS_H
Lims ID: ic
Client ID:
Operator ID: BERGERB ALS Bottle#: 7 Worklist Smp#: 13
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

141 1,2,4-Trichlorobenzene, CAS: 120-82-1

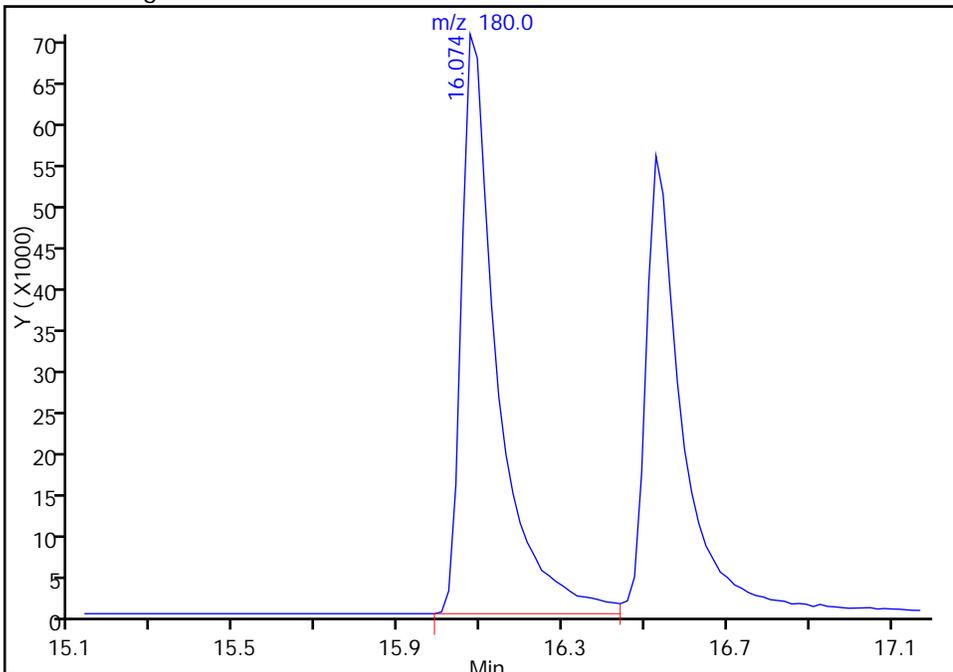
RT: 16.53
Area: 333902
Amount: 8.982972
Amount Units: ug/l

Processing Integration Results



RT: 16.07
Area: 429478
Amount: 11.144875
Amount Units: ug/l

Manual Integration Results



Reviewer: moanm, 02-Jun-2015 08:04:33
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

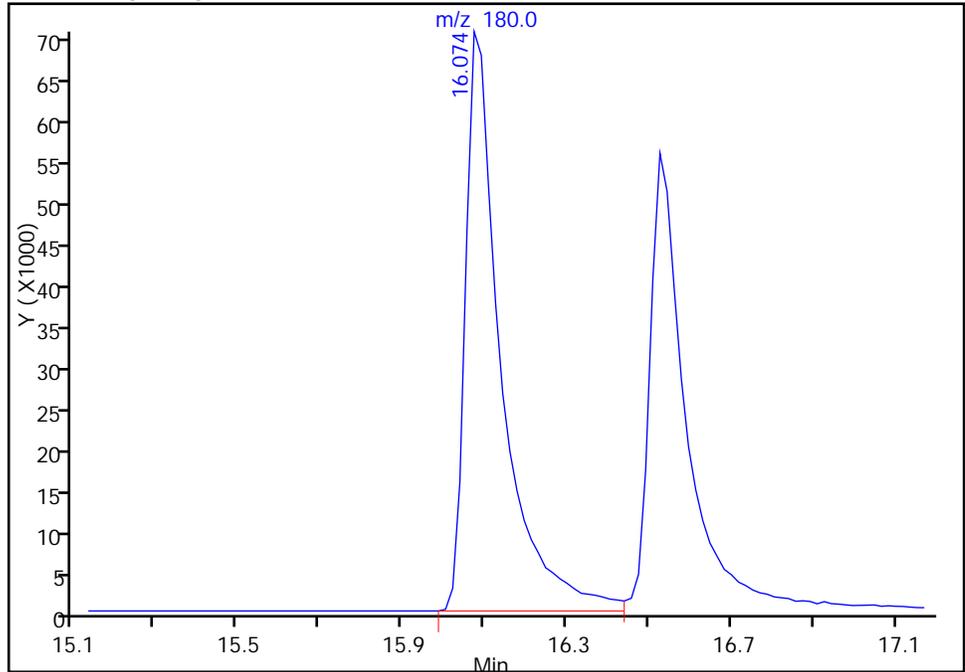
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2953.D
Injection Date: 28-May-2015 01:48:30 Instrument ID: VMS_H
Lims ID: ic
Client ID:
Operator ID: BERGERB ALS Bottle#: 7 Worklist Smp#: 13
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

144 1,2,3-Trichlorobenzene, CAS: 87-61-6

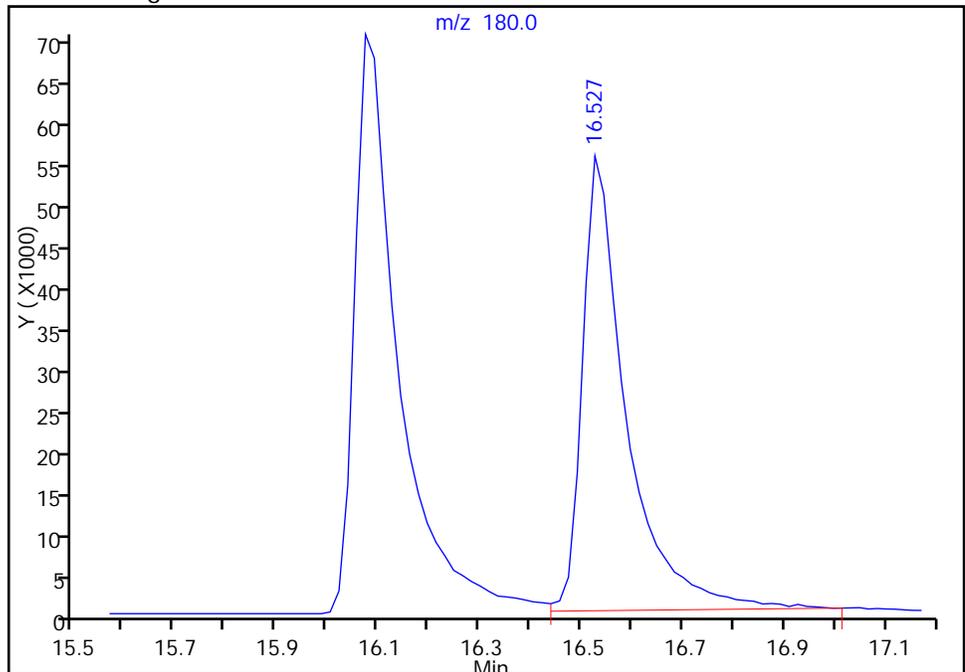
RT: 16.07
Area: 429478
Amount: 10.403969
Amount Units: ug/l

Processing Integration Results



RT: 16.53
Area: 333902
Amount: 9.551391
Amount Units: ug/l

Manual Integration Results



Reviewer: moanm, 02-Jun-2015 08:04:33
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2954.D
 Lims ID: ic
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 28-May-2015 02:10:30 ALS Bottle#: 8 Worklist Smp#: 14
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ic
 Operator ID: BERGERB Instrument ID: VMS_H
 Sublist: chrom-AQ_VMSH_8260*sub99
 Method: \\Denchrom\ChromData\VMS_H\20150528-35452.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 02-Jun-2015 08:04:52 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK030

First Level Reviewer: wickhamt

Date: 28-May-2015 06:25:39

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.987	3.975	0.012	96	211743	250.0	250.0	
* 2 Fluorobenzene	96	6.773	6.760	0.013	95	1066896	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.108	11.113	-0.005	93	237911	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.120	14.107	0.013	95	406093	12.5	12.5	
28 Dichlorodifluoromethane	85	2.159	2.164	-0.005	98	1582945	30.0	30.6	
30 Chloromethane	50	2.264	2.269	-0.005	99	1032956	30.0	31.1	
31 Butadiene	54	2.386	2.373	0.013	0	810368	NC	NC	
32 Vinyl chloride	62	2.386	2.390	-0.004	98	1028076	30.0	31.6	
35 Bromomethane	94	2.682	2.669	0.013	90	847148	30.0	31.4	
36 Chloroethane	64	2.751	2.756	-0.005	100	614520	30.0	31.1	
37 Dichlorofluoromethane	67	2.925	2.930	-0.005	99	2336784	30.0	32.6	
38 Trichlorofluoromethane	101	2.995	2.982	0.013	100	2060386	30.0	32.1	
40 Ethyl ether	59	3.221	3.226	-0.005	94	502993	30.0	29.7	
44 Acrolein	56	3.361	3.365	-0.004	100	354662	300.0	304.1	
45 1,1-Dichloroethene	96	3.465	3.470	-0.005	94	937902	30.0	29.4	
46 1,1,2-Trichloro-1,2,2-trif	151	3.500	3.487	0.013	98	1309750	30.0	30.2	
47 Acetone	43	3.517	3.505	0.012	98	376529	120.0	113.4	
48 Iodomethane	142	3.639	3.644	-0.005	99	2111383	30.0	29.4	
50 Carbon disulfide	76	3.726	3.731	-0.005	100	3580245	30.0	29.1	
52 3-Chloro-1-propene	41	3.813	3.818	-0.005	90	2163538	30.0	29.3	
53 Methyl acetate	43	3.831	3.818	0.013	98	1670946	150.0	155.5	
54 Methylene Chloride	84	3.953	3.957	-0.004	98	814145	30.0	29.7	
55 2-Methyl-2-propanol	59	4.057	4.062	-0.005	92	300590	300.0	300.7	
57 Acrylonitrile	53	4.196	4.201	-0.005	98	863563	300.0	310.6	
58 trans-1,2-Dichloroethene	96	4.231	4.236	-0.005	95	1056693	30.0	29.5	
56 Methyl tert-butyl ether	73	4.249	4.236	0.013	98	1794782	30.0	29.6	
59 Hexane	57	4.510	4.514	-0.004	95	1936877	30.0	30.4	
60 1,1-Dichloroethane	63	4.684	4.688	-0.004	96	2206706	30.0	29.2	
61 Vinyl acetate	43	4.719	4.723	-0.004	96	3086662	60.0	65.9	
65 cis-1,2-Dichloroethene	96	5.363	5.367	-0.004	89	1074834	30.0	29.8	
67 2-Butanone (MEK)	43	5.363	5.367	-0.004	97	820646	120.0	134.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
66 2,2-Dichloropropane	77	5.380	5.385	-0.005	92	1911674	30.0	29.9	
71 sec-Butyl Alcohol	45	5.572	5.576	-0.004	96	1291377	900.0	851.8	
73 Chlorobromomethane	128	5.659	5.663	-0.004	90	488660	30.0	30.8	
74 Tetrahydrofuran	42	5.711	5.716	-0.005	97	265724	60.0	60.3	
75 Chloroform	83	5.728	5.733	-0.005	97	2084195	30.0	29.5	
76 1,1,1-Trichloroethane	97	5.972	5.977	-0.005	97	2022539	30.0	30.0	
77 Cyclohexane	56	6.059	6.046	0.013	97	2254936	30.0	30.3	
78 1,1-Dichloropropene	75	6.164	6.168	-0.004	92	1748830	30.0	28.9	
79 Carbon tetrachloride	117	6.181	6.186	-0.005	97	1914881	30.0	30.5	
80 Isobutyl alcohol	41	6.286	6.290	-0.004	91	420168	750.0	791.2	
81 Benzene	78	6.425	6.429	-0.004	98	3405649	30.0	30.5	
82 1,2-Dichloroethane	62	6.442	6.447	-0.005	96	1008279	30.0	29.9	
84 n-Heptane	43	6.721	6.725	-0.004	97	3019511	30.0	30.5	
86 Trichloroethene	95	7.243	7.230	0.013	97	1391651	30.0	30.6	
88 2-Pentanone	43	7.469	7.474	-0.005	96	2088712	120.0	123.0	
89 Methylcyclohexane	55	7.504	7.491	0.013	90	2049189	30.0	30.9	
90 1,2-Dichloropropane	63	7.539	7.526	0.013	89	1320707	30.0	29.6	
92 Dibromomethane	93	7.696	7.700	-0.004	92	654298	30.0	29.4	
93 1,4-Dioxane	88	7.731	7.718	0.013	31	87288	600.0	663.8	
94 Dichlorobromomethane	83	7.905	7.892	0.013	98	1964681	30.0	30.2	
96 2-Chloroethyl vinyl ether	63	8.288	8.292	-0.004	89	271671	30.0	34.0	
97 cis-1,3-Dichloropropene	75	8.497	8.501	-0.004	91	1713888	30.0	30.6	
98 4-Methyl-2-pentanone (MIBK)	43	8.723	8.710	0.013	97	2918765	120.0	128.5	
99 Toluene	91	8.984	8.971	0.013	97	3836921	30.0	29.9	
100 trans-1,3-Dichloropropene	75	9.280	9.285	-0.005	98	1231322	30.0	30.1	
101 Ethyl methacrylate	69	9.419	9.406	0.013	97	1050575	30.0	30.5	
102 1,1,2-Trichloroethane	97	9.559	9.546	0.013	93	735362	30.0	28.6	
103 Tetrachloroethene	164	9.767	9.772	-0.005	96	1183439	30.0	30.6	
104 1,3-Dichloropropane	76	9.802	9.789	0.013	95	1297830	30.0	29.8	
105 2-Hexanone	43	9.924	9.929	-0.005	98	1981716	120.0	124.4	
108 Chlorodibromomethane	129	10.150	10.155	-0.005	90	1317455	30.0	31.0	
109 Ethylene Dibromide	107	10.342	10.329	0.013	98	925921	30.0	30.9	
110 1-Chlorohexane	91	11.125	11.113	0.012	91	1911706	30.0	29.2	
111 Chlorobenzene	112	11.160	11.147	0.013	90	2540363	30.0	29.8	
112 1,1,1,2-Tetrachloroethane	131	11.282	11.287	-0.005	96	1254447	30.0	30.5	
113 Ethylbenzene	106	11.334	11.322	0.012	99	1300912	30.0	29.9	
114 m-Xylene & p-Xylene	106	11.508	11.496	0.012	98	1816296	30.0	30.7	
115 o-Xylene	106	12.083	12.070	0.013	99	1578391	30.0	30.4	
116 Styrene	104	12.100	12.088	0.012	93	2556260	30.0	30.5	
117 Bromoform	173	12.344	12.349	-0.005	94	737056	30.0	32.2	
118 Isopropylbenzene	105	12.570	12.558	0.012	97	4996844	30.0	28.7	
120 Cyclohexanone	55	12.692	12.697	-0.005	98	677839	1200.0	1283.6	
122 Bromobenzene	156	12.953	12.941	0.012	97	1204988	30.0	30.0	
121 1,1,2,2-Tetrachloroethane	83	12.953	12.958	-0.005	94	1042084	30.0	28.8	
123 1,2,3-Trichloropropane	110	13.006	12.993	0.013	82	231112	30.0	27.3	
124 trans-1,4-Dichloro-2-buten	53	13.023	13.028	-0.005	71	257129	30.0	27.1	
125 N-Propylbenzene	120	13.075	13.080	-0.005	99	1211930	30.0	28.5	
126 2-Chlorotoluene	126	13.180	13.184	-0.004	95	938094	30.0	28.4	
127 1,3,5-Trimethylbenzene	105	13.302	13.289	0.013	95	3748579	30.0	28.5	
128 4-Chlorotoluene	126	13.319	13.306	0.013	99	1265565	30.0	29.7	
129 tert-Butylbenzene	119	13.685	13.672	0.013	95	4067161	30.0	28.5	
130 1,2,4-Trimethylbenzene	105	13.737	13.724	0.013	95	3557690	30.0	28.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
131 sec-Butylbenzene	134	13.928	13.916	0.012	95	1080246	30.0	28.7	
132 1,3-Dichlorobenzene	146	14.050	14.037	0.013	96	1735503	30.0	28.5	
133 4-Isopropyltoluene	119	14.085	14.072	0.013	98	4713028	30.0	29.1	
134 1,4-Dichlorobenzene	146	14.137	14.142	-0.005	93	2812786	30.0	29.9	
137 n-Butylbenzene	91	14.520	14.507	0.013	99	4897561	30.0	28.8	
138 1,2-Dichlorobenzene	146	14.538	14.542	-0.004	96	1890736	30.0	29.6	
139 1,2-Dibromo-3-Chloropropan	157	15.304	15.326	-0.022	80	184811	30.0	30.9	
141 1,2,4-Trichlorobenzene	180	16.087	16.074	0.013	94	1320265	30.0	31.8	a
142 Hexachlorobutadiene	225	16.226	16.231	-0.005	97	1302417	30.0	29.1	
143 Naphthalene	128	16.296	16.301	-0.005	97	1488412	30.0	30.4	
144 1,2,3-Trichlorobenzene	180	16.540	16.527	0.013	93	1050261	30.0	29.8	a
S 151 1,2-Dichloroethene, Total	96				0		60.0	59.2	
S 145 Trihalomethanes, Total	1				0		120.0	122.9	
S 146 Xylenes, Total (URS)	1				0		60.0	61.1	
S 147 Total BTEX	1				0			151.5	
S 148 1,3-Dichloropropene, Total	1				0		60.0	60.7	
S 149 1,2-Dichloroethene, Total	1				0		60.0	59.2	
S 150 Xylenes, Total	106				0		60.0	61.1	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

a - User Assigned ID

Reagents:

MV-568718-D_00002	Amount Added: 1.00	Units: uL
MV-Main A_00022	Amount Added: 15.00	Units: uL
MV-Gas/Ket A_00033	Amount Added: 15.00	Units: uL
MV-2cleve+AVA_00009	Amount Added: 15.00	Units: uL

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2954.D

Injection Date: 28-May-2015 02:10:30

Instrument ID: VMS_H

Operator ID: BERGERB

Lims ID: ic

Worklist Smp#: 14

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

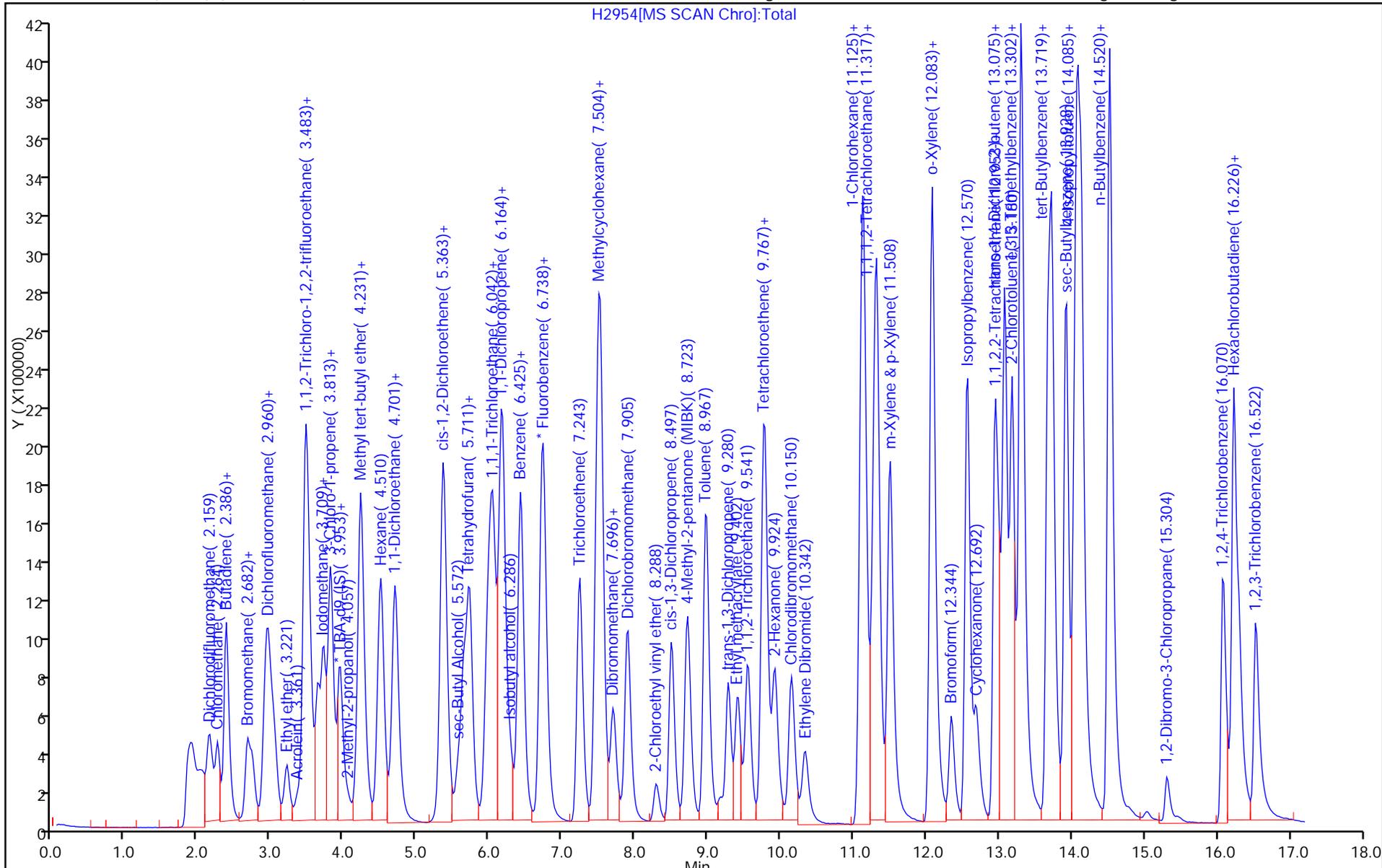
ALS Bottle#: 8

Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



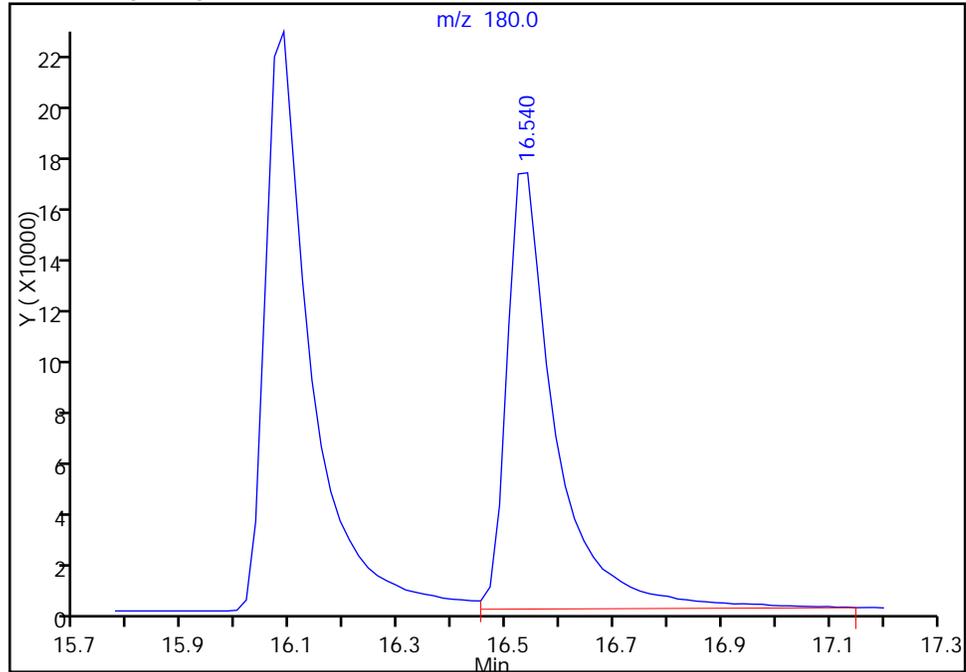
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2954.D
 Injection Date: 28-May-2015 02:10:30 Instrument ID: VMS_H
 Lims ID: ic
 Client ID:
 Operator ID: BERGERB ALS Bottle#: 8 Worklist Smp#: 14
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
 Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

141 1,2,4-Trichlorobenzene, CAS: 120-82-1

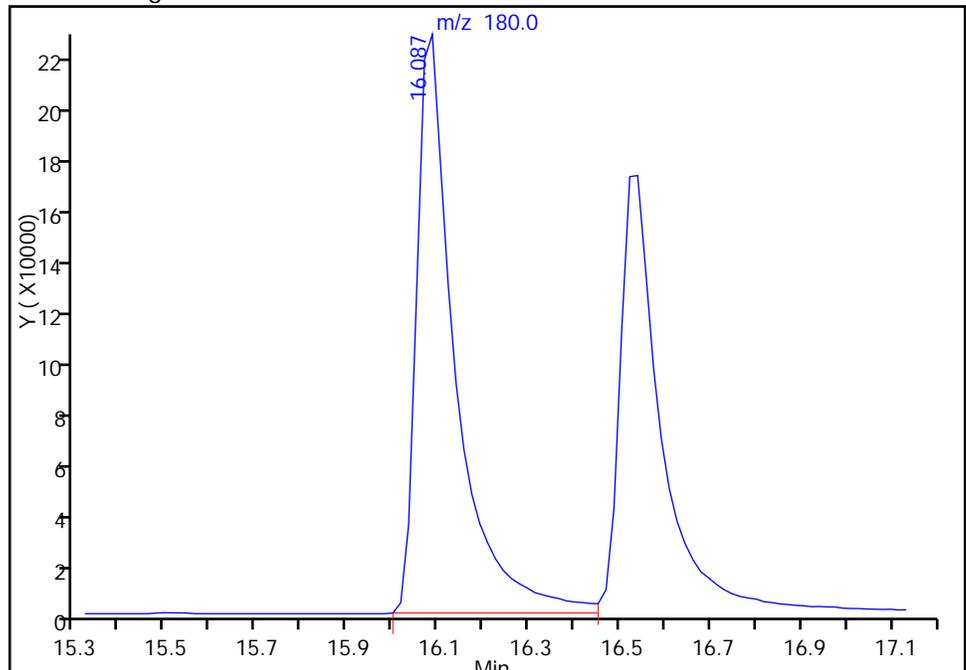
RT: 16.54
 Area: 1050261
 Amount: 26.073362
 Amount Units: ug/l

Processing Integration Results



RT: 16.09
 Area: 1320265
 Amount: 31.762542
 Amount Units: ug/l

Manual Integration Results



Reviewer: moanm, 02-Jun-2015 08:04:52
 Audit Action: Assigned Compound ID
 Audit Reason: Assign Peak

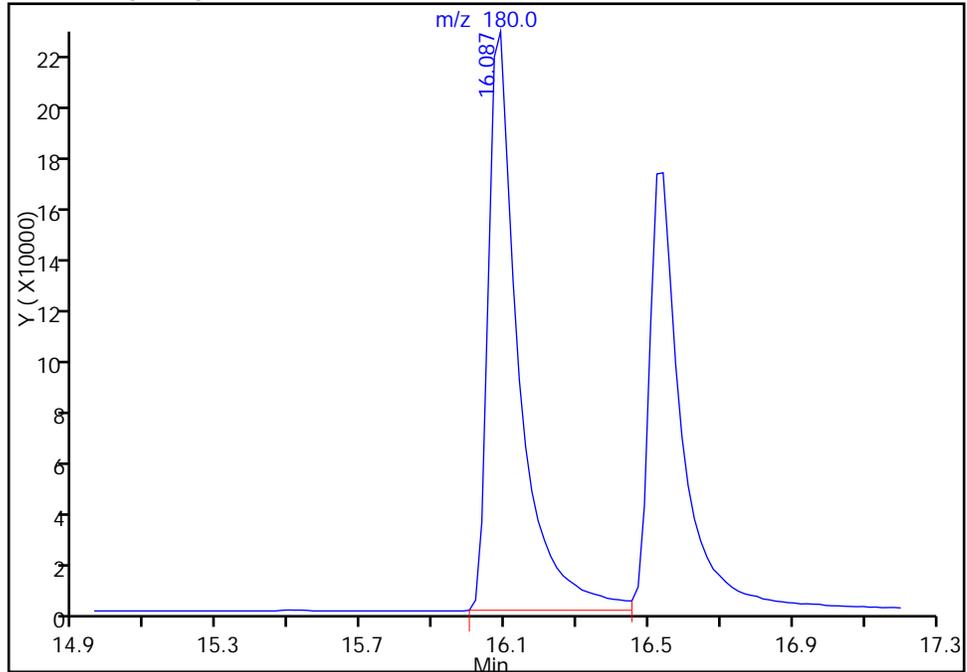
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2954.D
Injection Date: 28-May-2015 02:10:30 Instrument ID: VMS_H
Lims ID: ic
Client ID:
Operator ID: BERGERB ALS Bottle#: 8 Worklist Smp#: 14
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

144 1,2,3-Trichlorobenzene, CAS: 87-61-6

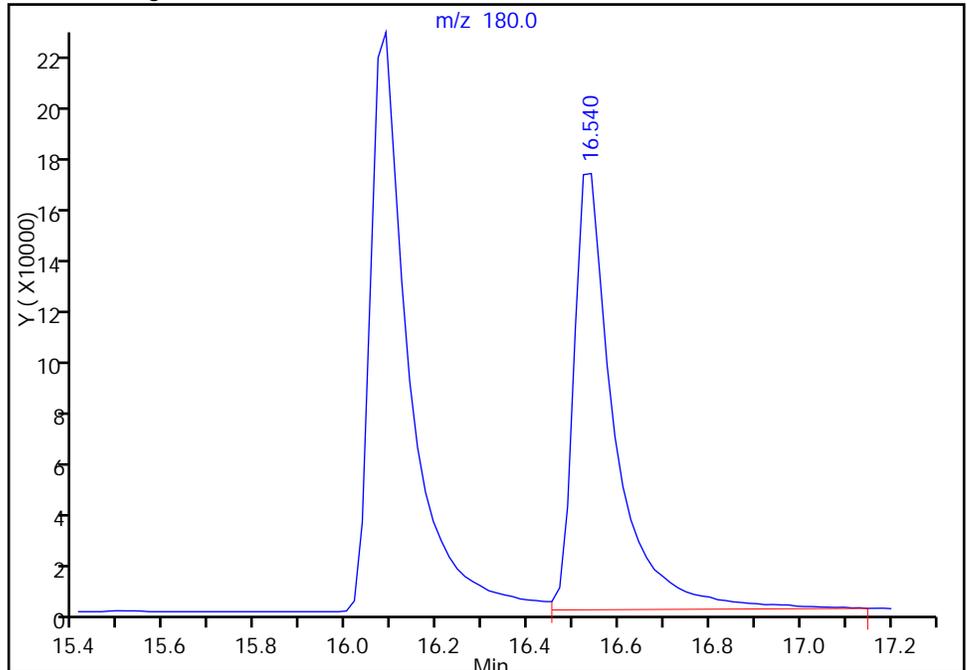
RT: 16.09
Area: 1320265
Amount: 36.130523
Amount Units: ug/l

Processing Integration Results



RT: 16.54
Area: 1050261
Amount: 29.789730
Amount Units: ug/l

Manual Integration Results



Reviewer: moanm, 02-Jun-2015 08:04:52
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2955.D
 Lims ID: ic
 Client ID:
 Sample Type: IC Calib Level: 7
 Inject. Date: 28-May-2015 02:33:30 ALS Bottle#: 9 Worklist Smp#: 15
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ic
 Operator ID: BERGERB Instrument ID: VMS_H
 Sublist: chrom-AQ_VMSH_8260*sub99
 Method: \\Denchrom\ChromData\VMS_H\20150528-35452.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 02-Jun-2015 08:05:05 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK030

First Level Reviewer: wickhamt

Date: 28-May-2015 06:35:52

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.994	3.975	0.019	96	189827	250.0	250.0	
* 2 Fluorobenzene	96	6.779	6.760	0.019	97	1088738	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.114	11.113	0.001	91	232172	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.126	14.107	0.019	95	409472	12.5	12.5	
28 Dichlorodifluoromethane	85	2.166	2.164	0.002	98	3195464	60.0	60.4	
30 Chloromethane	50	2.270	2.269	0.001	98	2063538	60.0	60.9	
31 Butadiene	54	2.374	2.373	0.001	0	1655066	NC	NC	
32 Vinyl chloride	62	2.392	2.390	0.002	98	2088314	60.0	63.0	
35 Bromomethane	94	2.688	2.669	0.019	90	1677127	60.0	61.0	
36 Chloroethane	64	2.740	2.756	-0.016	100	1175653	60.0	58.3	
37 Dichlorofluoromethane	67	2.932	2.930	0.002	99	4651419	60.0	63.6	
38 Trichlorofluoromethane	101	2.984	2.982	0.002	100	4149850	60.0	63.5	
40 Ethyl ether	59	3.228	3.226	0.002	94	946871	60.0	54.8	
44 Acrolein	56	3.367	3.365	0.002	99	670949	599.9	563.7	
45 1,1-Dichloroethene	96	3.471	3.470	0.001	94	1917053	60.0	59.0	
46 1,1,2-Trichloro-1,2,2-trif	151	3.489	3.487	0.002	98	2715137	60.0	61.3	
47 Acetone	43	3.506	3.505	0.001	97	674850	240.0	199.2	
48 Iodomethane	142	3.645	3.644	0.001	99	4302574	60.0	58.8	
50 Carbon disulfide	76	3.715	3.731	-0.016	100	7290483	60.0	58.1	
52 3-Chloro-1-propene	41	3.819	3.818	0.001	91	4311947	60.0	57.1	
53 Methyl acetate	43	3.837	3.818	0.019	99	3085396	300.0	281.3	
54 Methylene Chloride	84	3.941	3.957	-0.016	98	1594879	60.0	57.5	
55 2-Methyl-2-propanol	59	4.081	4.062	0.019	96	530360	600.0	596.2	
57 Acrylonitrile	53	4.202	4.201	0.001	98	1661461	600.0	585.7	
58 trans-1,2-Dichloroethene	96	4.237	4.236	0.001	95	2163767	60.0	59.2	
56 Methyl tert-butyl ether	73	4.237	4.236	0.001	99	3405326	60.0	54.9	
59 Hexane	57	4.498	4.514	-0.016	95	4048497	60.0	65.0	
60 1,1-Dichloroethane	63	4.690	4.688	0.002	96	4517987	60.0	58.5	
61 Vinyl acetate	43	4.725	4.723	0.002	96	5740935	120.0	120.0	
65 cis-1,2-Dichloroethene	96	5.369	5.367	0.002	88	2172564	60.0	58.9	
67 2-Butanone (MEK)	43	5.369	5.367	0.002	95	1491424	240.0	238.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
66 2,2-Dichloropropane	77	5.369	5.385	-0.016	91	3826816	60.0	59.4	
71 sec-Butyl Alcohol	45	5.578	5.576	0.002	96	2256681	1800.0	1660.4	
73 Chlorobromomethane	128	5.647	5.663	-0.016	90	966337	60.0	59.7	
74 Tetrahydrofuran	42	5.717	5.716	0.001	95	502514	120.0	111.8	
75 Chloroform	83	5.735	5.733	0.001	97	4188258	60.0	58.1	
76 1,1,1-Trichloroethane	97	5.978	5.977	0.001	97	4170262	60.0	60.5	
77 Cyclohexane	56	6.048	6.046	0.002	97	4600736	60.0	60.5	
78 1,1-Dichloropropene	75	6.170	6.168	0.002	92	3571391	60.0	57.8	
79 Carbon tetrachloride	117	6.187	6.186	0.001	98	3967597	60.0	62.0	
80 Isobutyl alcohol	41	6.292	6.290	0.002	92	692521	1500.0	1454.7	
81 Benzene	78	6.431	6.429	0.002	97	6903972	60.0	60.5	
82 1,2-Dichloroethane	62	6.448	6.447	0.001	96	1932916	60.0	56.1	
84 n-Heptane	43	6.727	6.725	0.002	97	6112060	60.0	60.5	
86 Trichloroethene	95	7.249	7.230	0.019	97	2854202	60.0	61.5	
88 2-Pentanone	43	7.475	7.474	0.001	96	3833019	240.0	221.2	
89 Methylcyclohexane	55	7.510	7.491	0.019	91	4186466	60.0	61.8	
90 1,2-Dichloropropane	63	7.545	7.526	0.019	96	2580688	60.0	56.6	
92 Dibromomethane	93	7.702	7.700	0.002	95	1255247	60.0	55.3	
93 1,4-Dioxane	88	7.719	7.718	0.001	81	154119	1200.0	1139.8	
94 Dichlorobromomethane	83	7.893	7.892	0.001	98	3971466	60.0	59.9	
96 2-Chloroethyl vinyl ether	63	8.294	8.292	0.002	88	539090	60.0	66.2	
97 cis-1,3-Dichloropropene	75	8.503	8.501	0.002	91	3329041	60.0	60.9	
98 4-Methyl-2-pentanone (MIBK)	43	8.729	8.710	0.019	97	5332900	240.0	230.1	
99 Toluene	91	8.973	8.971	0.002	97	7745216	60.0	59.2	
100 trans-1,3-Dichloropropene	75	9.286	9.285	0.001	98	2363176	60.0	56.6	
101 Ethyl methacrylate	69	9.408	9.406	0.002	95	1969555	60.0	58.7	
102 1,1,2-Trichloroethane	97	9.547	9.546	0.001	92	1387307	60.0	53.0	
103 Tetrachloroethene	164	9.774	9.772	0.002	96	2470886	60.0	65.4	
104 1,3-Dichloropropane	76	9.791	9.789	0.002	97	2453301	60.0	57.6	
105 2-Hexanone	43	9.930	9.929	0.001	98	3687649	240.0	236.7	
108 Chlorodibromomethane	129	10.157	10.155	0.002	91	2532153	60.0	61.1	
109 Ethylene Dibromide	107	10.331	10.329	0.002	98	1794214	60.0	61.4	
110 1-Chlorohexane	91	11.114	11.113	0.001	90	3982029	60.0	62.4	
111 Chlorobenzene	112	11.149	11.147	0.002	90	5169847	60.0	62.1	
112 1,1,1,2-Tetrachloroethane	131	11.288	11.287	0.001	96	2510665	60.0	62.5	
113 Ethylbenzene	106	11.323	11.322	0.001	99	2674714	60.0	63.0	
114 m-Xylene & p-Xylene	106	11.514	11.496	0.018	98	3670522	60.0	63.6	
115 o-Xylene	106	12.072	12.070	0.002	98	3193493	60.0	63.1	
116 Styrene	104	12.089	12.088	0.001	93	5159432	60.0	63.0	
117 Bromoform	173	12.350	12.349	0.001	94	1411916	60.0	63.1	
118 Isopropylbenzene	105	12.559	12.558	0.001	96	10313550	60.0	58.8	
120 Cyclohexanone	55	12.698	12.697	0.001	97	1194077	2400.0	2315.6	
122 Bromobenzene	156	12.942	12.941	0.001	95	2406376	60.0	59.5	
121 1,1,2,2-Tetrachloroethane	83	12.959	12.958	0.001	94	1907715	60.0	52.2	
123 1,2,3-Trichloropropane	110	13.012	12.993	0.019	80	434508	60.0	50.9	
124 trans-1,4-Dichloro-2-buten	53	13.029	13.028	0.001	82	486849	60.0	50.8	
125 N-Propylbenzene	120	13.081	13.080	0.001	99	2510741	60.0	58.5	
126 2-Chlorotoluene	126	13.186	13.184	0.002	95	1941695	60.0	58.3	
127 1,3,5-Trimethylbenzene	105	13.308	13.289	0.019	95	7739677	60.0	58.3	
128 4-Chlorotoluene	126	13.325	13.306	0.019	98	2561711	60.0	59.6	
129 tert-Butylbenzene	119	13.673	13.672	0.001	95	8377315	60.0	58.2	
130 1,2,4-Trimethylbenzene	105	13.726	13.724	0.002	95	7231176	60.0	57.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
131 sec-Butylbenzene	134	13.917	13.916	0.001	95	2264838	60.0	59.6	
132 1,3-Dichlorobenzene	146	14.039	14.037	0.002	97	3660427	60.0	59.6	
133 4-Isopropyltoluene	119	14.091	14.072	0.019	98	9779012	60.0	59.8	
134 1,4-Dichlorobenzene	146	14.143	14.142	0.001	95	5532730	60.0	58.3	
137 n-Butylbenzene	91	14.509	14.507	0.002	99	10123491	60.0	59.0	
138 1,2-Dichlorobenzene	146	14.544	14.542	0.002	97	3820213	60.0	59.2	
139 1,2-Dibromo-3-Chloropropan	157	15.310	15.326	-0.016	82	349881	60.0	58.1	
141 1,2,4-Trichlorobenzene	180	16.076	16.074	0.002	94	2675409	60.0	61.7	a
142 Hexachlorobutadiene	225	16.232	16.231	0.001	97	2743229	60.0	60.7	
143 Naphthalene	128	16.302	16.301	0.001	97	2893523	60.0	58.7	
144 1,2,3-Trichlorobenzene	180	16.528	16.527	0.001	93	2079040	60.0	60.9	a
S 151 1,2-Dichloroethene, Total	96				0		120.0	118.1	
S 145 Trihalomethanes, Total	1				0		240.0	242.2	
S 146 Xylenes, Total (URS)	1				0		120.0	126.7	
S 147 Total BTEX	1				0			309.5	
S 148 1,3-Dichloropropene, Total	1				0		120.0	117.5	
S 149 1,2-Dichloroethene, Total	1				0		120.0	118.1	
S 150 Xylenes, Total	106				0		120.0	126.7	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

a - User Assigned ID

Reagents:

MV-568718-D_00002	Amount Added: 1.00	Units: uL
MV-Main A_00022	Amount Added: 30.00	Units: uL
MV-Gas/Ket A_00033	Amount Added: 30.00	Units: uL
MV-2cleve+AVA_00009	Amount Added: 30.00	Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2955.D

Injection Date: 28-May-2015 02:33:30

Instrument ID: VMS_H

Operator ID: BERGERB

Lims ID: ic

Worklist Smp#: 15

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

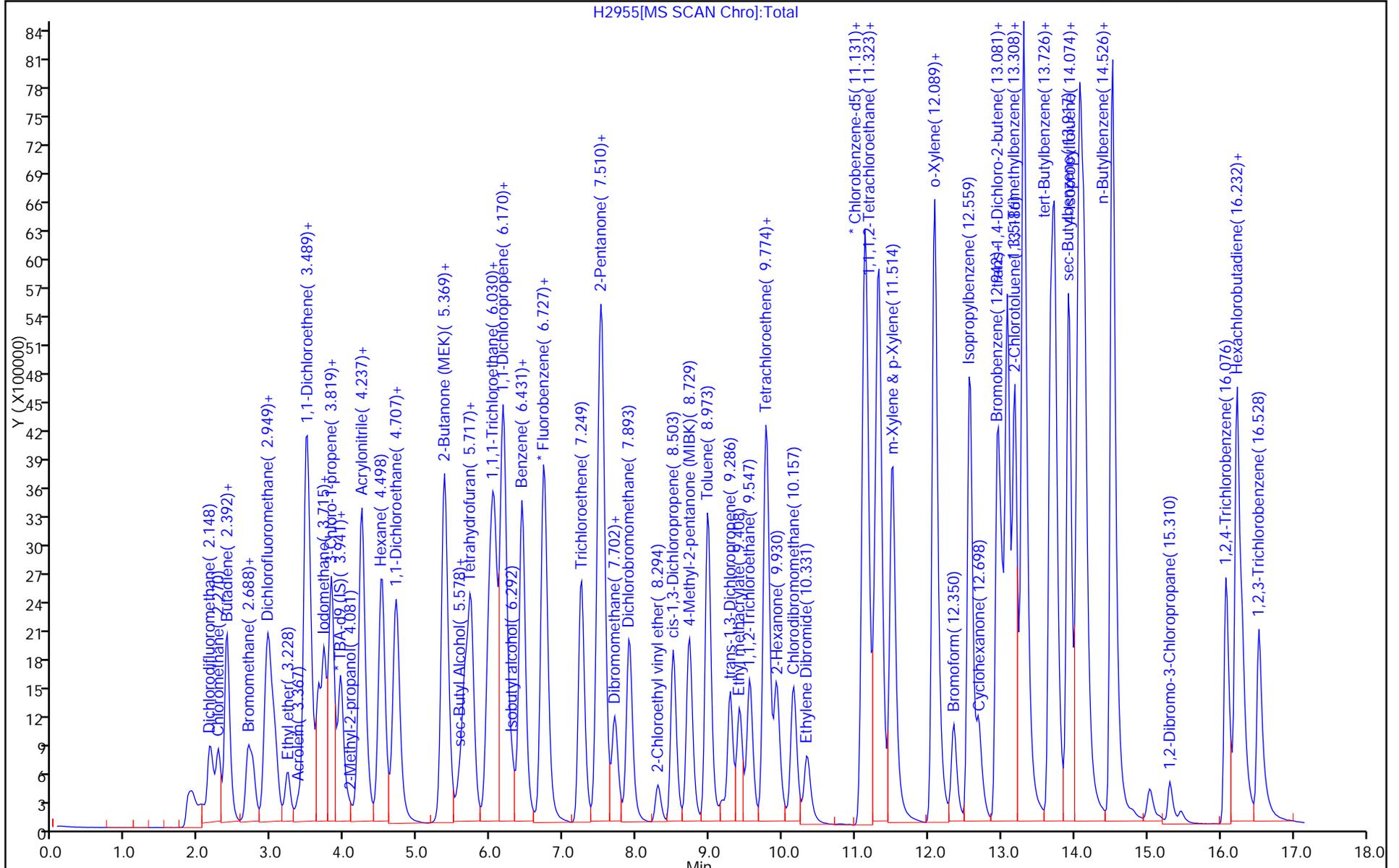
ALS Bottle#: 9

Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



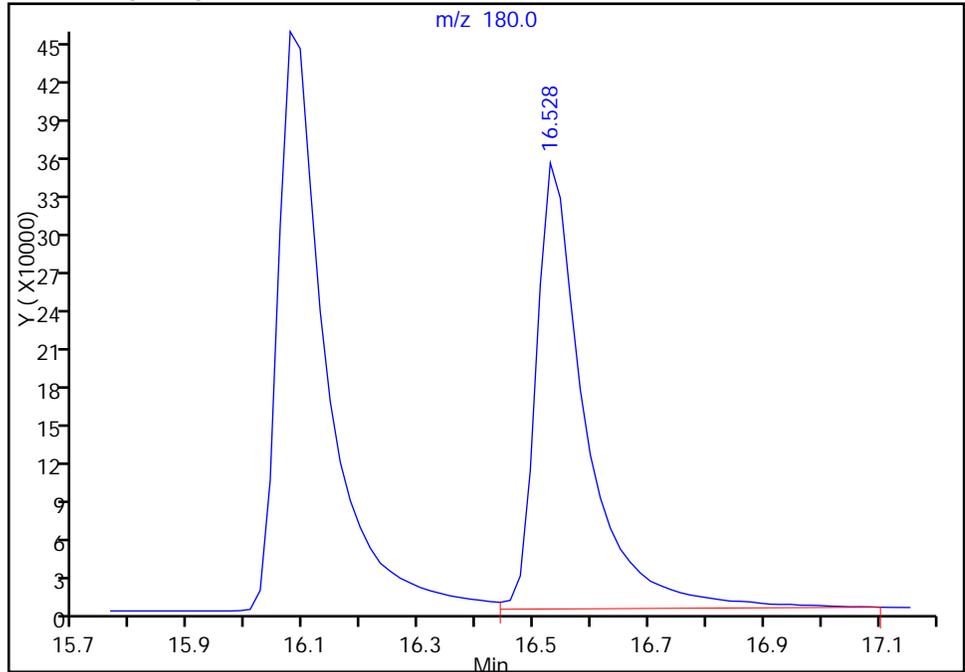
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2955.D
Injection Date: 28-May-2015 02:33:30 Instrument ID: VMS_H
Lims ID: ic
Client ID:
Operator ID: BERGERB ALS Bottle#: 9 Worklist Smp#: 15
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

141 1,2,4-Trichlorobenzene, CAS: 120-82-1

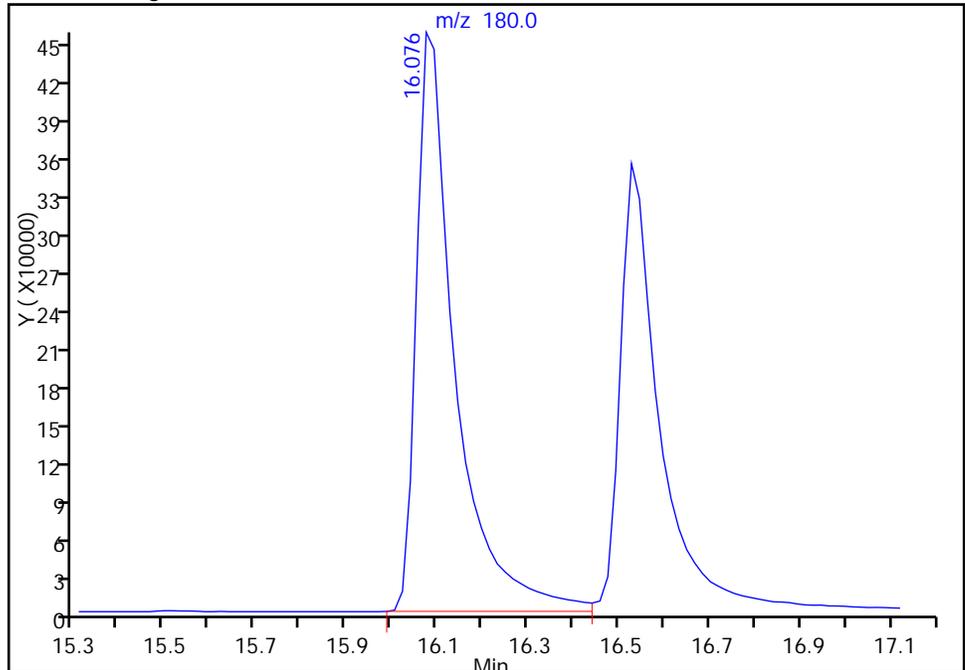
RT: 16.53
Area: 2079040
Amount: 49.604181
Amount Units: ug/l

Processing Integration Results



RT: 16.08
Area: 2675409
Amount: 61.741363
Amount Units: ug/l

Manual Integration Results



Reviewer: moanm, 02-Jun-2015 08:05:05
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

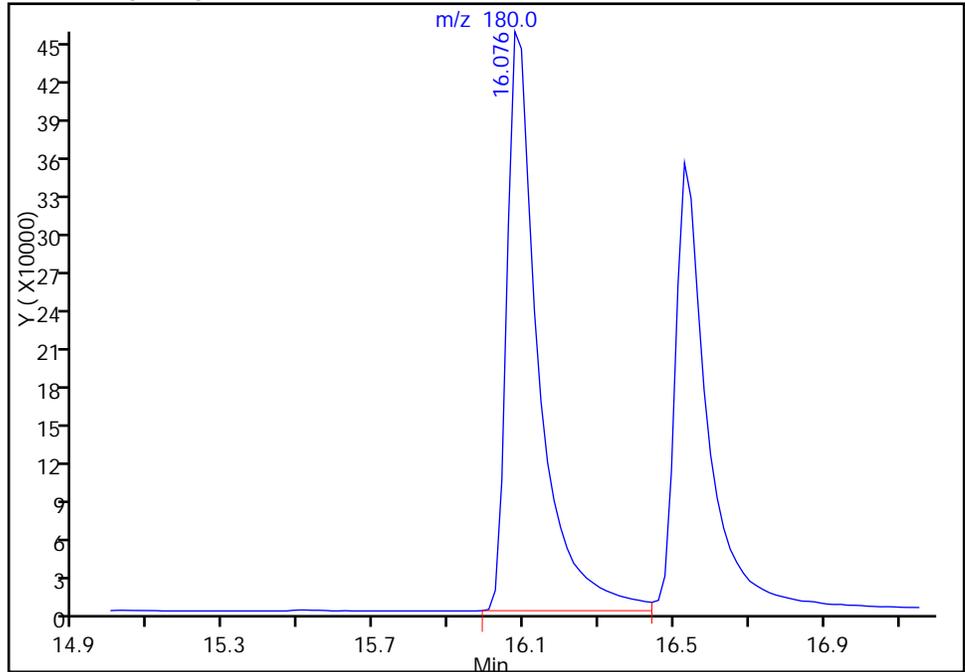
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2955.D
Injection Date: 28-May-2015 02:33:30 Instrument ID: VMS_H
Lims ID: ic
Client ID:
Operator ID: BERGERB ALS Bottle#: 9 Worklist Smp#: 15
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

144 1,2,3-Trichlorobenzene, CAS: 87-61-6

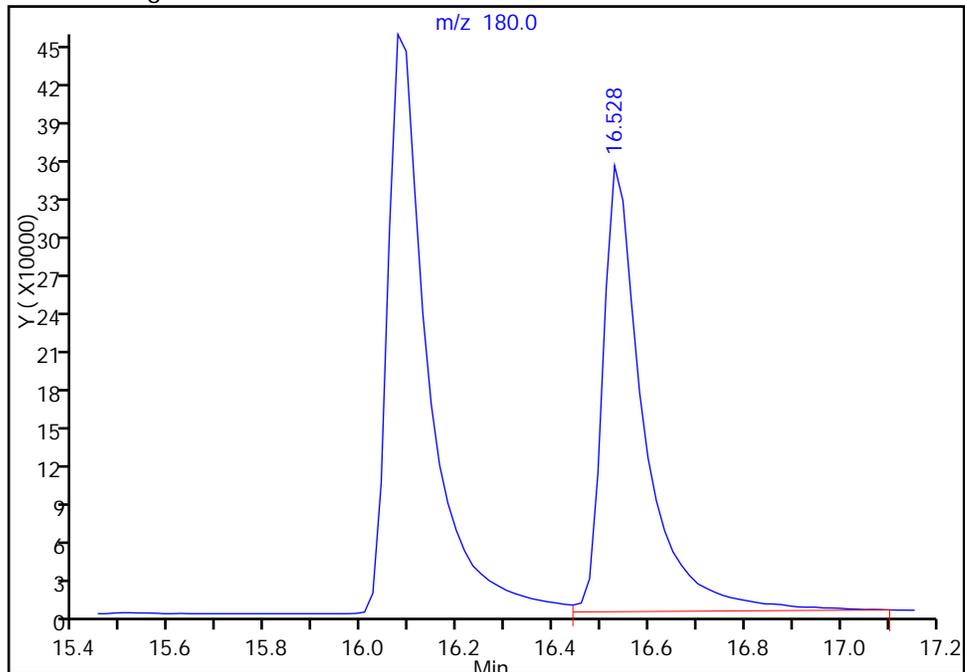
RT: 16.08
Area: 2675409
Amount: 75.259408
Amount Units: ug/l

Processing Integration Results



RT: 16.53
Area: 2079040
Amount: 60.916685
Amount Units: ug/l

Manual Integration Results



Reviewer: moanm, 02-Jun-2015 08:05:05
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2957.D
 Lims ID: ic
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 28-May-2015 03:18:30 ALS Bottle#: 11 Worklist Smp#: 16
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ic
 Operator ID: BERGERB Instrument ID: VMS_H
 Sublist: chrom-AQ_VMSH_8260*sub99
 Method: \\Denchrom\ChromData\VMS_H\20150528-35452.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 28-May-2015 07:24:17 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK018

First Level Reviewer: wickhamt Date: 28-May-2015 06:47:23

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.973	3.975	-0.002	99	223130	250.0	250.0	
* 2 Fluorobenzene	96	6.759	6.760	-0.001	97	1100257	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.111	11.113	-0.002	93	260705	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.123	14.107	0.016	98	399090	12.5	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.923	5.924	-0.001	93	62835	1.00	1.13	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	6.341	6.342	-0.001	83	33456	1.00	1.09	
\$ 10 Toluene-d8 (Surr)	98	8.883	8.883	-0.001	95	134275	1.00	1.06	
\$ 11 4-Bromofluorobenzene (Surr	95	12.765	12.766	-0.001	81	81659	1.00	1.20	
34 Ethylene oxide	43	2.650	2.633	0.017	99	108123	200.0	200.2	
39 Ethanol	45		3.156				ND	ND	
43 Propene oxide	58	3.311	3.295	0.016	95	106179	50.0	51.5	
49 Isopropyl alcohol	45	3.642	3.626	0.016	36	10503	10.0	13.7	
51 Acetonitrile	41	3.799	3.817	-0.018	71	16071	12.5	15.3	M
62 Isopropyl ether	87	4.756	4.757	-0.001	99	33342	1.25	1.31	
63 2-Chloro-1,3-butadiene	53	4.791	4.792	-0.001	92	61627	1.00	1.06	
64 Tert-butyl ethyl ether	59	5.174	5.175	-0.001	99	153824	1.25	1.49	
69 Ethyl acetate	43	5.435	5.419	0.016	95	30591	2.00	2.19	
70 Propionitrile	54	5.470	5.454	0.016	46	13113	12.5	13.2	
72 Methacrylonitrile	41	5.627	5.610	0.017	97	88804	10.0	10.2	
83 Tert-amyl methyl ether	73	6.550	6.551	0.000	97	108283	1.25	1.33	
85 n-Butanol	56	7.159	7.160	-0.001	84	6625	25.0	22.8	
87 Ethyl acrylate	55	7.368	7.351	0.017	0	20390	NC	NC	
91 Methyl methacrylate	100	7.681	7.665	0.016	94	11608	2.00	2.38	
95 2-Nitropropane	41	8.186	8.187	-0.001	96	7254	2.00	2.01	
107 Tetrahydrothiophene	60	10.136	10.119	0.017	59	11131	1.00	0.99	
119 cis-1,4-Dichloro-2-butene	53	12.660	12.661	-0.001	82	5565	1.00	0.7918	
135 1,2,3-Trimethylbenzene	105	14.192	14.193	-0.001	97	111761	1.00	1.05	
140 1,3,5-Trichlorobenzene	180	15.516	15.516	0.000	95	54832	1.00	1.04	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MV-568718-D_00002	Amount Added: 1.00	Units: uL
MV-Supp A_00011	Amount Added: 0.50	Units: uL
MV-ARCH SS A_00042	Amount Added: 0.08	Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2957.D

Injection Date: 28-May-2015 03:18:30

Instrument ID: VMS_H

Operator ID: BERGERB

Lims ID: ic

Worklist Smp#: 16

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

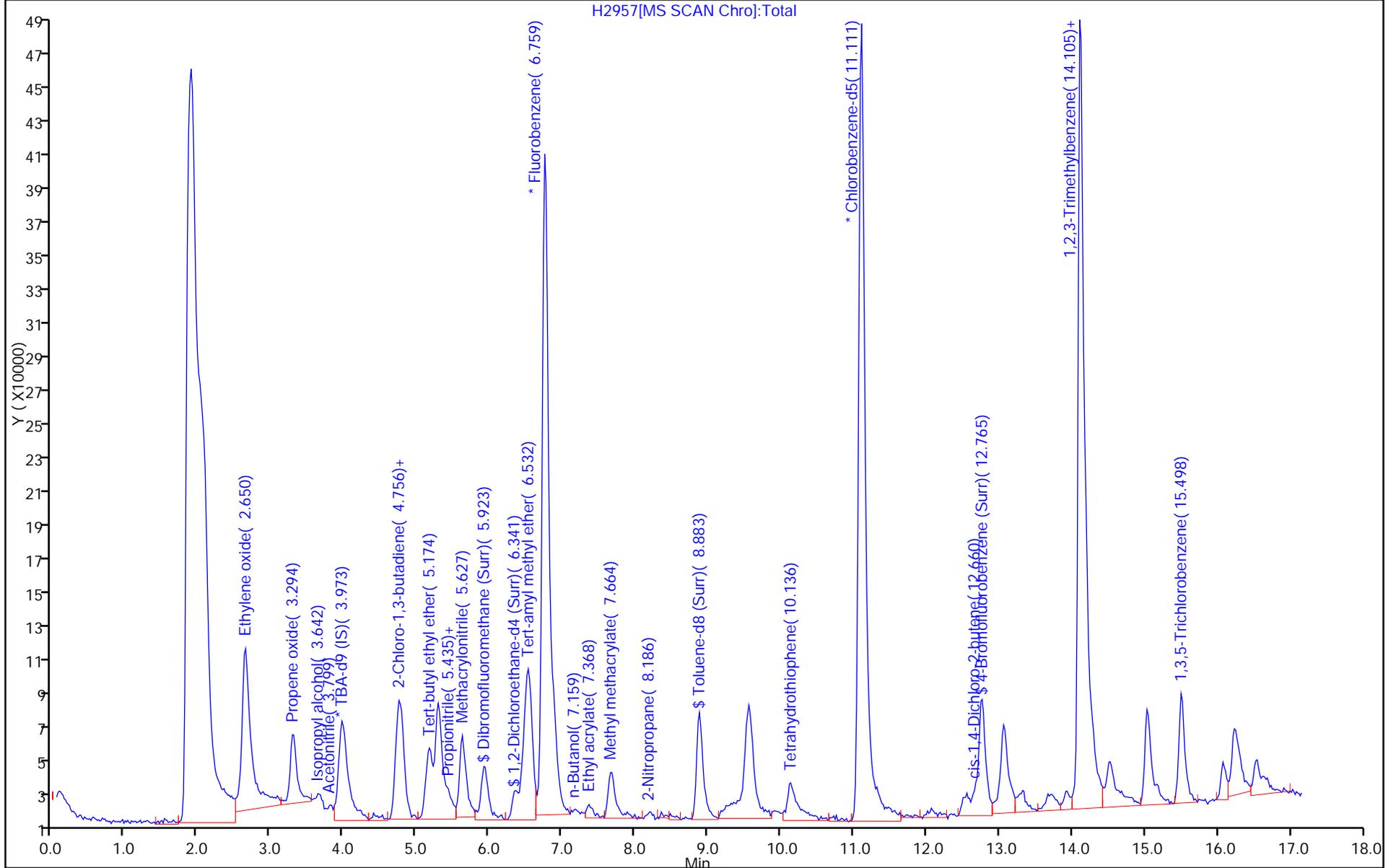
ALS Bottle#: 11

Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



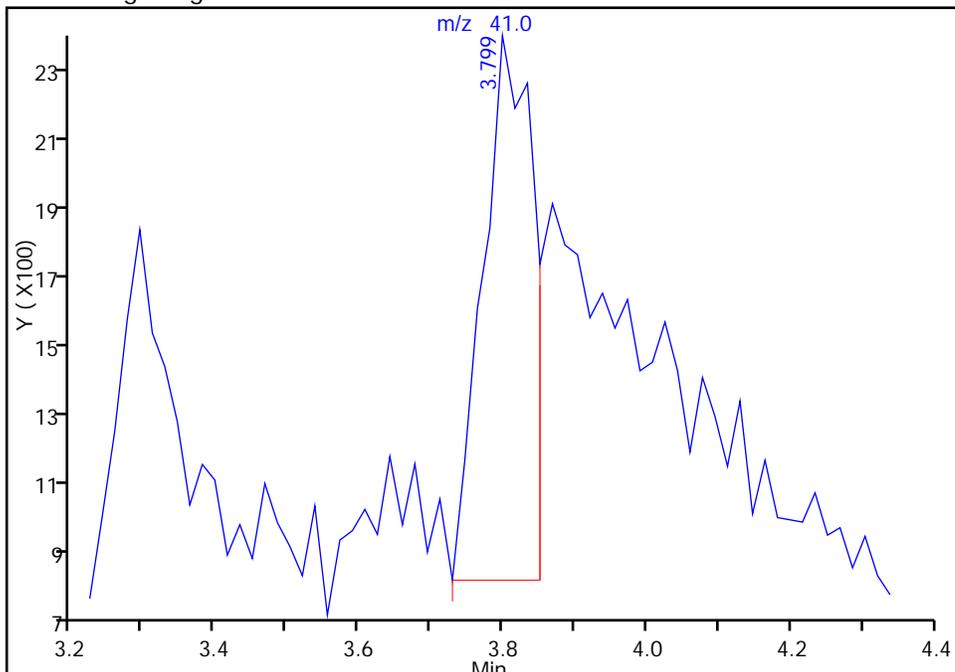
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2957.D
Injection Date: 28-May-2015 03:18:30 Instrument ID: VMS_H
Lims ID: ic
Client ID:
Operator ID: BERGERB ALS Bottle#: 11 Worklist Smp#: 16
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

51 Acetonitrile, CAS: 75-05-8

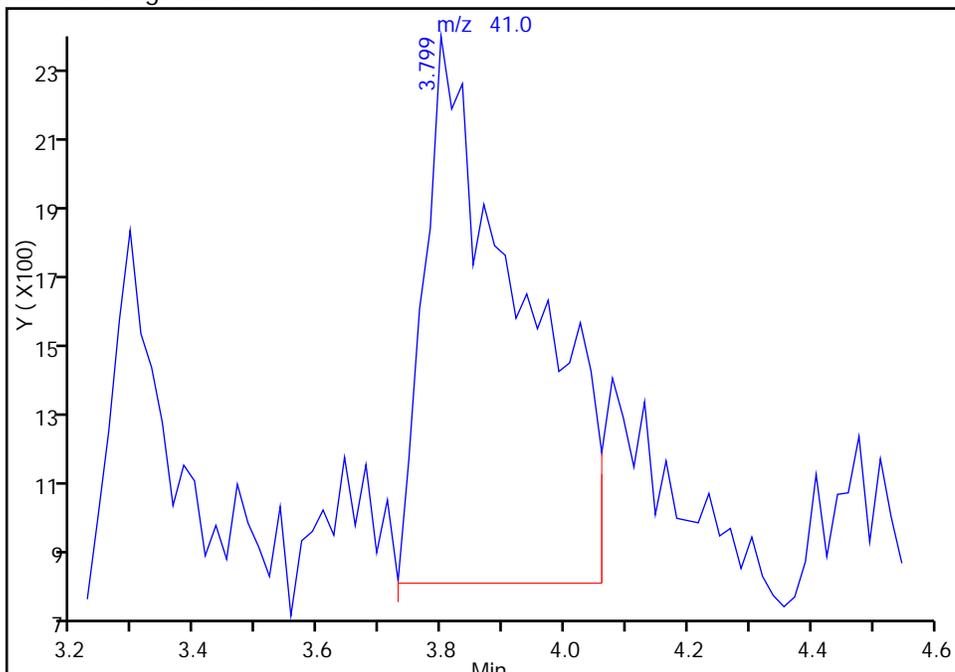
RT: 3.80
Area: 7181
Amount: 10.938454
Amount Units: ug/l

Processing Integration Results



RT: 3.80
Area: 16071
Amount: 15.289027
Amount Units: ug/l

Manual Integration Results



Reviewer: wickhamt, 28-May-2015 06:50:57
Audit Action: Assigned New Baseline
Audit Reason: Split Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2958.D
 Lims ID: ic
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 28-May-2015 03:40:30 ALS Bottle#: 12 Worklist Smp#: 17
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ic
 Operator ID: BERGERB Instrument ID: VMS_H
 Sublist: chrom-AQ_VMSH_8260*sub99
 Method: \\Denchrom\ChromData\VMS_H\20150528-35452.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 28-May-2015 07:24:18 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK018

First Level Reviewer: wickhamt Date: 28-May-2015 06:47:56

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.987	3.975	0.012	99	199012	250.0	250.0	
* 2 Fluorobenzene	96	6.755	6.760	-0.005	97	1109205	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.108	11.113	-0.005	93	253043	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.120	14.107	0.013	98	394410	12.5	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.920	5.924	-0.004	93	118288	2.00	2.11	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	6.355	6.342	0.013	83	66325	2.00	2.14	
\$ 10 Toluene-d8 (Surr)	98	8.879	8.883	-0.004	94	255016	2.00	2.07	
\$ 11 4-Bromofluorobenzene (Surr	95	12.762	12.766	-0.004	81	142343	2.00	2.11	
34 Ethylene oxide	43	2.647	2.633	0.014	99	206562	400.0	379.3	
39 Ethanol	45	3.169	3.156	0.013	45	9004	100.0	104.6	M
43 Propene oxide	58	3.308	3.295	0.013	95	198005	100.0	95.2	
49 Isopropyl alcohol	45	3.639	3.626	0.013	30	10028	20.0	12.6	
51 Acetonitrile	41	3.848	3.817	0.031	94	19392	25.0	20.5	M
62 Isopropyl ether	87	4.753	4.757	-0.004	99	64479	2.50	2.51	
63 2-Chloro-1,3-butadiene	53	4.788	4.792	-0.004	92	115265	2.00	1.97	
64 Tert-butyl ethyl ether	59	5.171	5.175	-0.004	99	264567	2.50	2.54	
69 Ethyl acetate	43	5.415	5.419	-0.004	96	50291	4.00	3.57	
70 Propionitrile	54	5.450	5.454	-0.004	32	23893	25.0	23.8	
72 Methacrylonitrile	41	5.624	5.610	0.014	97	173321	20.0	19.7	
83 Tert-amyl methyl ether	73	6.564	6.551	0.014	96	203262	2.50	2.48	
85 n-Butanol	56	7.156	7.160	-0.004	91	13826	50.0	47.2	
87 Ethyl acrylate	55	7.347	7.351	-0.004	0	47247	NC	NC	
91 Methyl methacrylate	100	7.661	7.665	-0.004	95	20939	4.00	4.26	
95 2-Nitropropane	41	8.200	8.187	0.013	96	13786	4.00	3.80	
107 Tetrahydrothiophene	60	10.133	10.119	0.014	59	22027	2.00	2.02	
119 cis-1,4-Dichloro-2-butene	53	12.657	12.661	-0.004	94	15634	2.00	2.25	
135 1,2,3-Trimethylbenzene	105	14.189	14.193	-0.004	97	209412	2.00	1.98	
140 1,3,5-Trichlorobenzene	180	15.512	15.516	-0.004	96	105315	2.00	2.03	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

MV-568718-D_00002	Amount Added: 1.00	Units: uL
MV-Supp A_00011	Amount Added: 1.00	Units: uL
MV-ARCH SS A_00042	Amount Added: 0.16	Units: uL

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2958.D

Injection Date: 28-May-2015 03:40:30

Instrument ID: VMS_H

Operator ID: BERGERB

Lims ID: ic

Worklist Smp#: 17

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

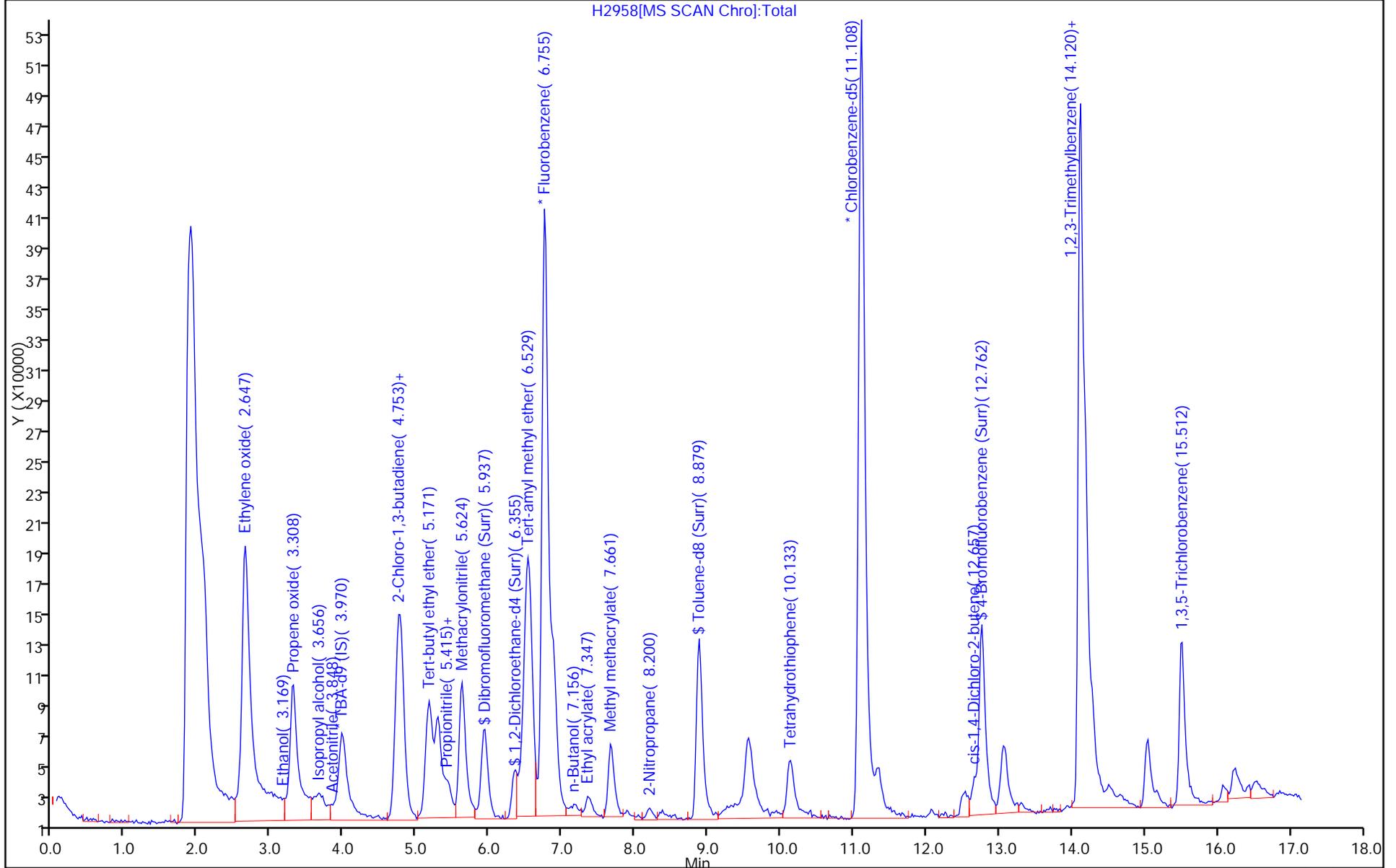
ALS Bottle#: 12

Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



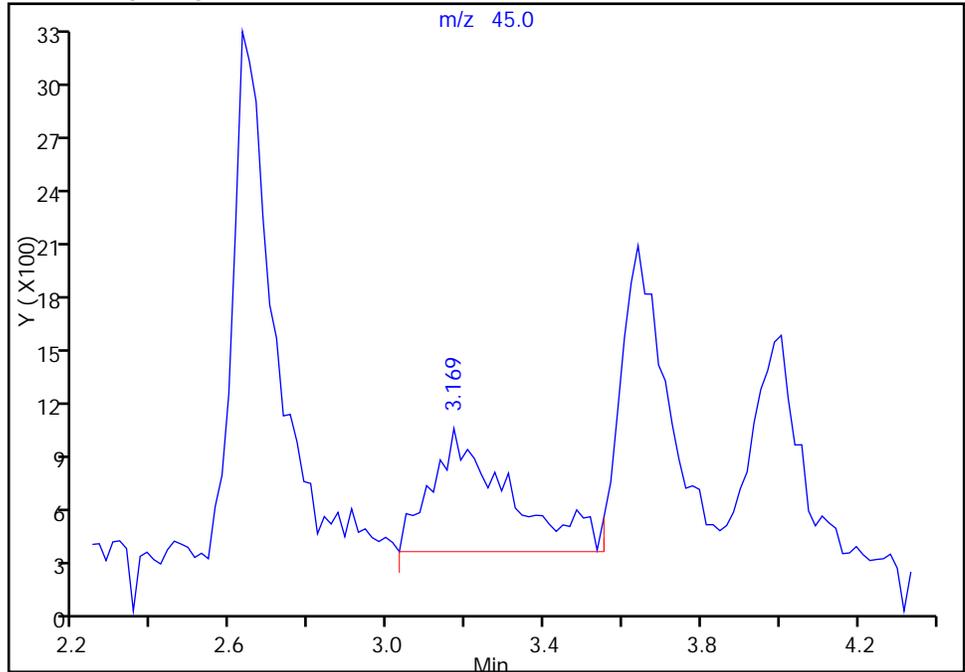
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2958.D
Injection Date: 28-May-2015 03:40:30 Instrument ID: VMS_H
Lims ID: ic
Client ID:
Operator ID: BERGERB ALS Bottle#: 12 Worklist Smp#: 17
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector MS SCAN

39 Ethanol, CAS: 64-17-5

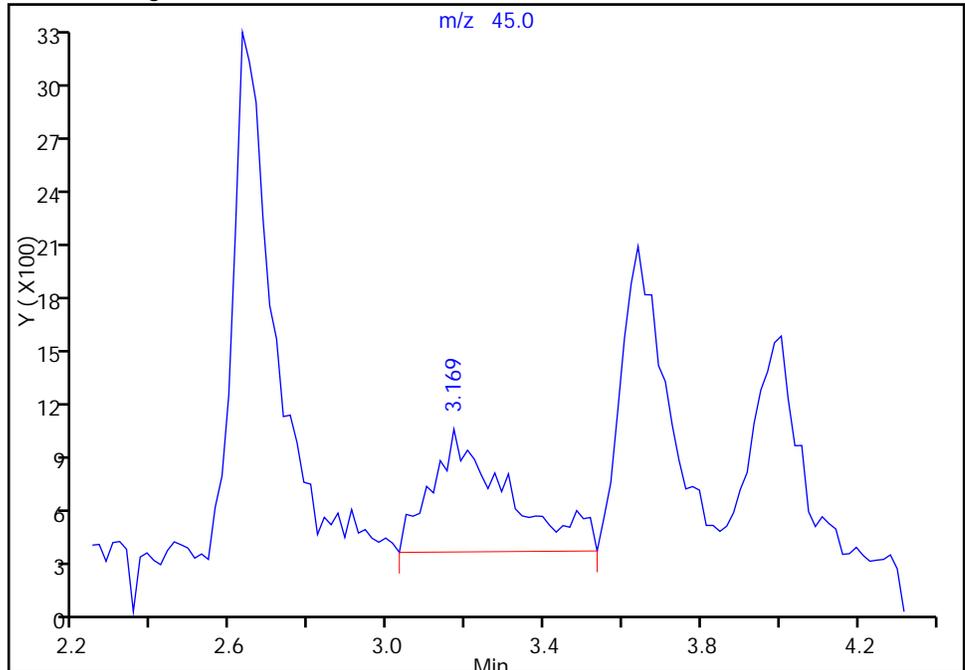
RT: 3.17
Area: 9329
Amount: 131.4277
Amount Units: ug/l

Processing Integration Results



RT: 3.17
Area: 9004
Amount: 104.5561
Amount Units: ug/l

Manual Integration Results



Reviewer: wickhamt, 28-May-2015 06:52:50
Audit Action: Manually Integrated
Audit Reason: Shouldering

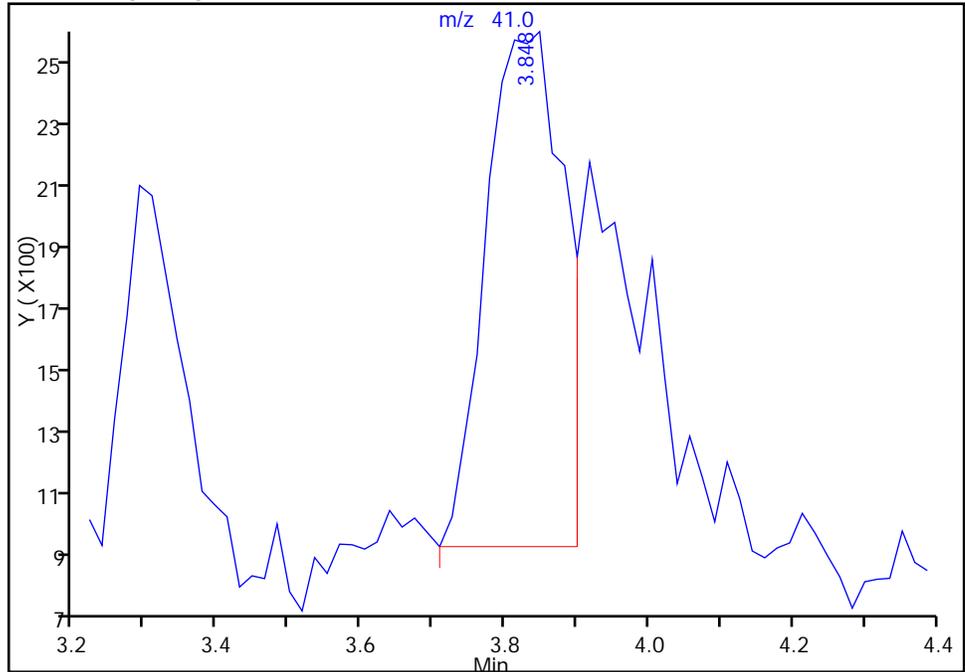
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2958.D
Injection Date: 28-May-2015 03:40:30 Instrument ID: VMS_H
Lims ID: ic
Client ID:
Operator ID: BERGERB ALS Bottle#: 12 Worklist Smp#: 17
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

51 Acetonitrile, CAS: 75-05-8

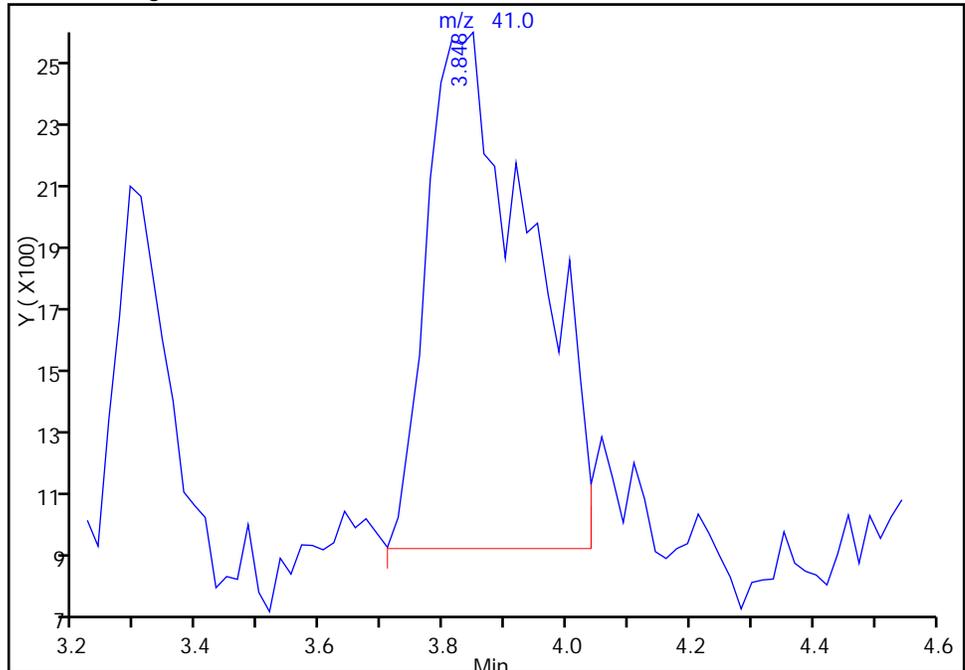
RT: 3.85
Area: 12617
Amount: 20.460101
Amount Units: ug/l

Processing Integration Results



RT: 3.85
Area: 19392
Amount: 20.495260
Amount Units: ug/l

Manual Integration Results



Reviewer: wickhamt, 28-May-2015 06:50:33
Audit Action: Assigned New Baseline
Audit Reason: Split Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2959.D
 Lims ID: ic
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 28-May-2015 04:03:30 ALS Bottle#: 13 Worklist Smp#: 18
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ic
 Operator ID: BERGERB Instrument ID: VMS_H
 Sublist: chrom-AQ_VMSH_8260*sub99
 Method: \\Denchrom\ChromData\VMS_H\20150528-35452.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 28-May-2015 07:24:19 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK018

First Level Reviewer: wickhamt Date: 28-May-2015 06:48:23

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.988	3.975	0.013	99	193876	250.0	250.0	
* 2 Fluorobenzene	96	6.756	6.760	-0.004	97	1102662	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.108	11.113	-0.005	92	247579	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.120	14.107	0.013	97	386847	12.5	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.920	5.924	-0.004	92	266180	5.00	4.78	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	6.338	6.342	-0.004	83	149069	5.00	4.83	
\$ 10 Toluene-d8 (Surr)	98	8.880	8.883	-0.003	95	582345	5.00	4.82	
\$ 11 4-Bromofluorobenzene (Surr	95	12.762	12.766	-0.004	81	317561	5.00	4.80	
34 Ethylene oxide	43	2.647	2.633	0.014	99	544994	1000.0	1006.8	
39 Ethanol	45	3.187	3.156	0.031	95	15621	250.0	216.2	M
43 Propene oxide	58	3.309	3.295	0.014	95	506300	250.0	244.9	
49 Isopropyl alcohol	45	3.657	3.626	0.031	95	24803	50.0	42.1	
51 Acetonitrile	41	3.796	3.817	-0.021	100	43880	62.5	60.9	
62 Isopropyl ether	87	4.736	4.757	-0.021	98	158619	6.25	6.21	
63 2-Chloro-1,3-butadiene	53	4.788	4.792	-0.004	92	294842	5.00	5.07	
64 Tert-butyl ethyl ether	59	5.171	5.175	-0.004	99	620642	6.25	6.00	
69 Ethyl acetate	43	5.415	5.419	-0.004	99	133601	10.0	9.55	
70 Propionitrile	54	5.450	5.454	-0.004	96	61262	62.5	61.5	
72 Methacrylonitrile	41	5.624	5.610	0.014	97	426154	50.0	48.8	
83 Tert-amyl methyl ether	73	6.547	6.551	-0.003	97	509379	6.25	6.25	
85 n-Butanol	56	7.156	7.160	-0.004	90	32899	125.0	113.0	
87 Ethyl acrylate	55	7.365	7.351	0.014	0	115703	NC	NC	
91 Methyl methacrylate	100	7.678	7.665	0.013	95	46363	10.0	9.48	
95 2-Nitropropane	41	8.201	8.187	0.014	96	34617	10.0	9.59	
107 Tetrahydrothiophene	60	10.133	10.119	0.014	59	52424	5.00	4.92	
119 cis-1,4-Dichloro-2-butene	53	12.640	12.661	-0.021	93	35995	5.00	5.28	
135 1,2,3-Trimethylbenzene	105	14.190	14.193	-0.003	98	519679	5.00	5.02	
140 1,3,5-Trichlorobenzene	180	15.513	15.516	-0.003	96	251792	5.00	4.94	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

MV-568718-D_00002	Amount Added: 1.00	Units: uL
MV-Supp A_00011	Amount Added: 2.50	Units: uL
MV-ARCH SS A_00042	Amount Added: 0.40	Units: uL

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2959.D

Injection Date: 28-May-2015 04:03:30

Instrument ID: VMS_H

Operator ID: BERGERB

Lims ID: ic

Worklist Smp#: 18

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

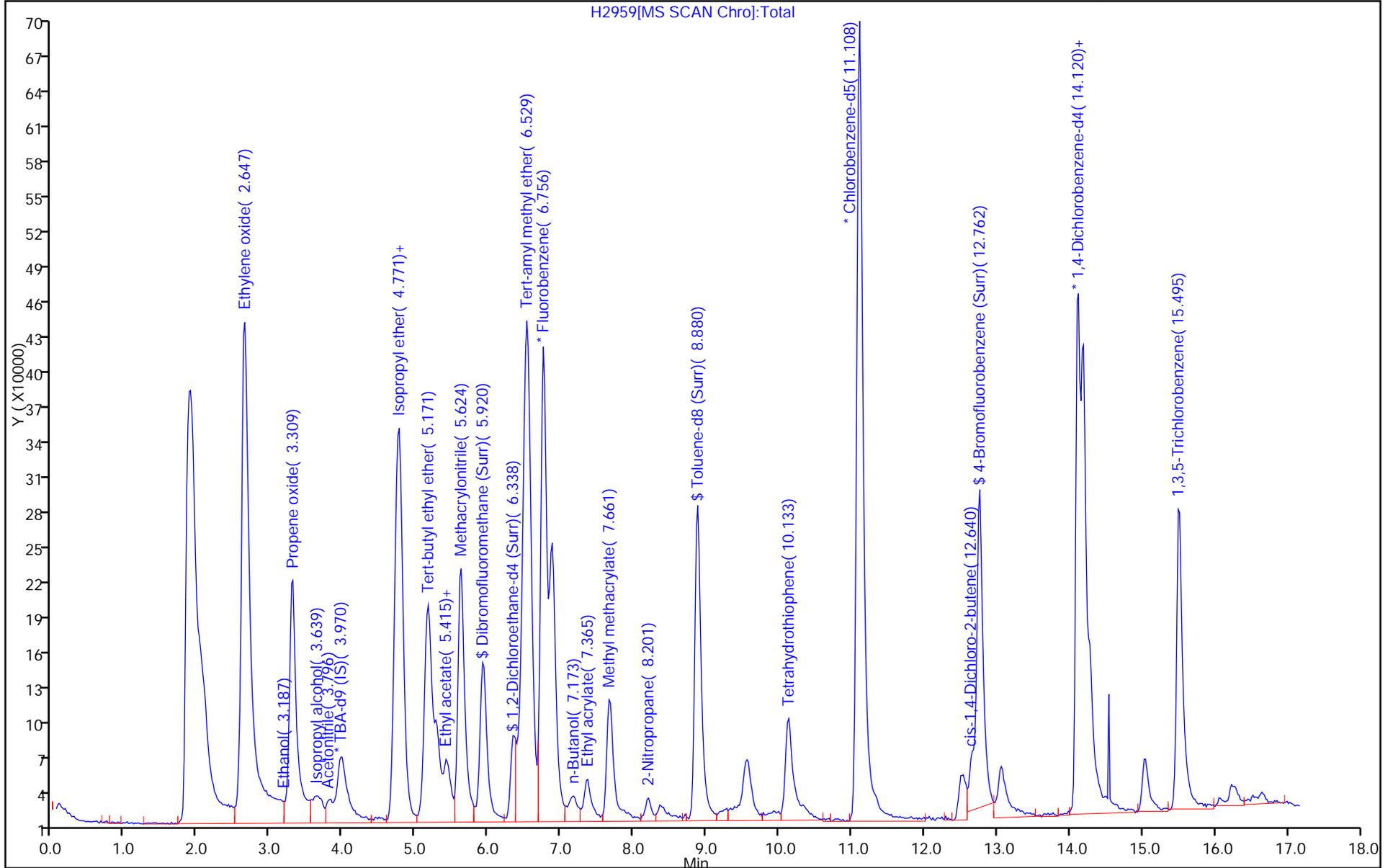
ALS Bottle#: 13

Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



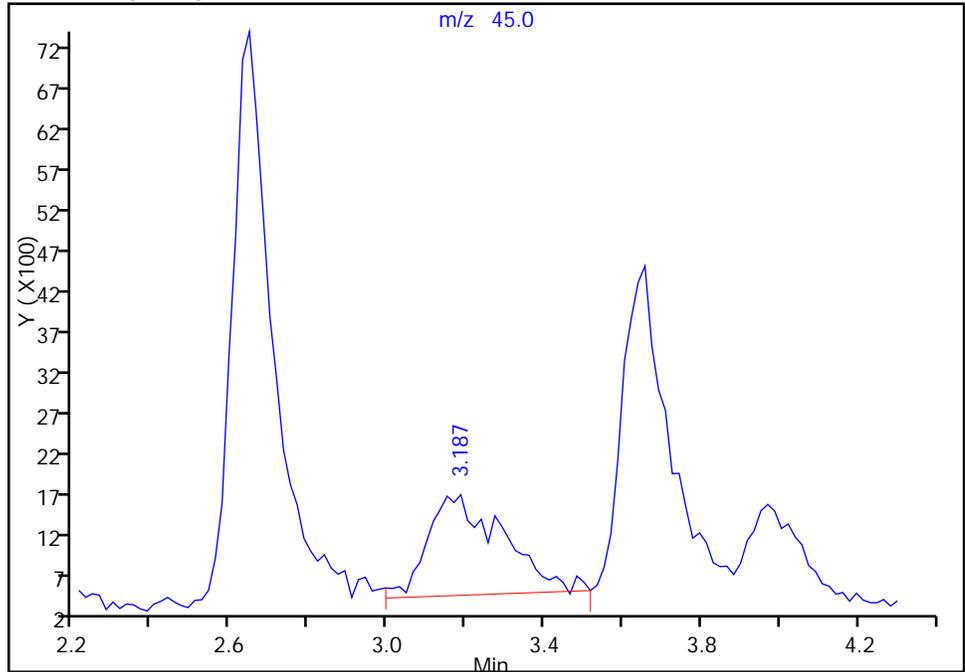
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2959.D
Injection Date: 28-May-2015 04:03:30 Instrument ID: VMS_H
Lims ID: ic
Client ID:
Operator ID: BERGERB ALS Bottle#: 13 Worklist Smp#: 18
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

39 Ethanol, CAS: 64-17-5

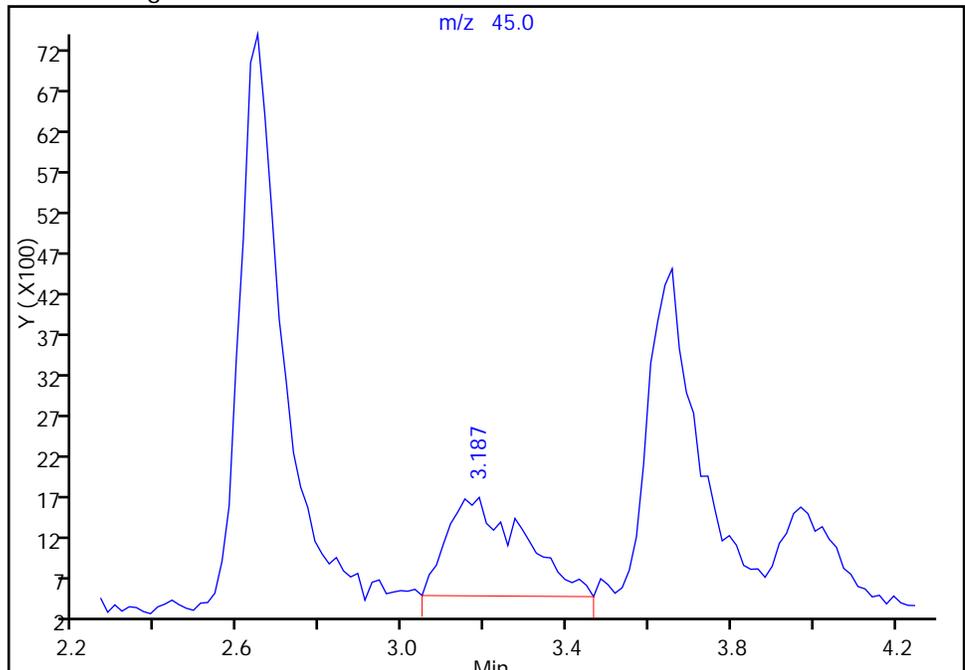
RT: 3.19
Area: 16621
Amount: 245.7684
Amount Units: ug/l

Processing Integration Results



RT: 3.19
Area: 15621
Amount: 216.1921
Amount Units: ug/l

Manual Integration Results



Reviewer: wickhamt, 28-May-2015 06:52:31
Audit Action: Manually Integrated
Audit Reason: Shouldering

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2960.D
 Lims ID: icis
 Client ID:
 Sample Type: ICIS Calib Level: 5
 Inject. Date: 28-May-2015 04:25:30 ALS Bottle#: 14 Worklist Smp#: 19
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: icis
 Operator ID: BERGERB Instrument ID: VMS_H
 Sublist: chrom-AQ_VMSH_8260*sub99
 Method: \\Denchrom\ChromData\VMS_H\20150528-35452.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 28-May-2015 07:24:20 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK018

First Level Reviewer: wickhamt Date: 28-May-2015 06:46:02

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.974	3.974	0.000	100	211144	250.0	250.0	
* 2 Fluorobenzene	96	6.759	6.759	0.000	98	1108417	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.094	11.094	0.000	93	256513	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.106	14.106	0.000	98	390191	12.5	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.924	5.924	0.000	93	546393	10.0	9.76	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	6.342	6.342	0.000	83	308839	10.0	9.96	
\$ 10 Toluene-d8 (Surr)	98	8.883	8.883	0.000	95	1177961	10.0	9.41	
\$ 11 4-Bromofluorobenzene (Surr	95	12.766	12.766	0.000	81	618356	10.0	9.26	
34 Ethylene oxide	43	2.633	2.633	0.000	99	1164009	2000.0	2139.2	
39 Ethanol	45	3.156	3.156	0.000	91	33859	500.0	518.5	
43 Propene oxide	58	3.295	3.295	0.000	95	1107446	500.0	533.0	
49 Isopropyl alcohol	45	3.626	3.626	0.000	95	62543	100.0	116.5	
51 Acetonitrile	41	3.817	3.817	0.000	99	81258	125.0	121.5	
62 Isopropyl ether	87	4.757	4.757	0.000	98	324780	12.5	12.7	
63 2-Chloro-1,3-butadiene	53	4.792	4.792	0.000	92	570915	10.0	9.76	
64 Tert-butyl ethyl ether	59	5.175	5.175	0.000	99	1272766	12.5	12.2	
69 Ethyl acetate	43	5.419	5.419	0.000	99	308502	20.0	21.9	
70 Propionitrile	54	5.454	5.454	0.000	98	130541	125.0	130.3	
72 Methacrylonitrile	41	5.610	5.610	0.000	97	925891	100.0	105.4	
83 Tert-amyl methyl ether	73	6.551	6.551	0.000	97	1058840	12.5	12.9	
85 n-Butanol	56	7.160	7.160	0.000	93	80688	250.0	275.7	
87 Ethyl acrylate	55	7.351	7.351	0.000	0	237833	NC	NC	
91 Methyl methacrylate	100	7.665	7.665	0.000	96	94799	20.0	19.3	
95 2-Nitropropane	41	8.187	8.187	0.000	97	68670	20.0	18.9	
107 Tetrahydrothiophene	60	10.119	10.119	0.000	71	109788	10.0	9.94	
119 cis-1,4-Dichloro-2-butene	53	12.661	12.661	0.000	93	75289	10.0	11.0	
135 1,2,3-Trimethylbenzene	105	14.193	14.193	0.000	99	1016440	10.0	9.74	
140 1,3,5-Trichlorobenzene	180	15.516	15.516	0.000	96	490488	10.0	9.54	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

MV-568718-D_00002	Amount Added: 1.00	Units: uL
MV-Supp A_00011	Amount Added: 5.00	Units: uL
MV-ARCH SS A_00042	Amount Added: 0.80	Units: uL

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2960.D

Injection Date: 28-May-2015 04:25:30

Instrument ID: VMS_H

Operator ID: BERGERB

Lims ID: icis

Worklist Smp#: 19

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

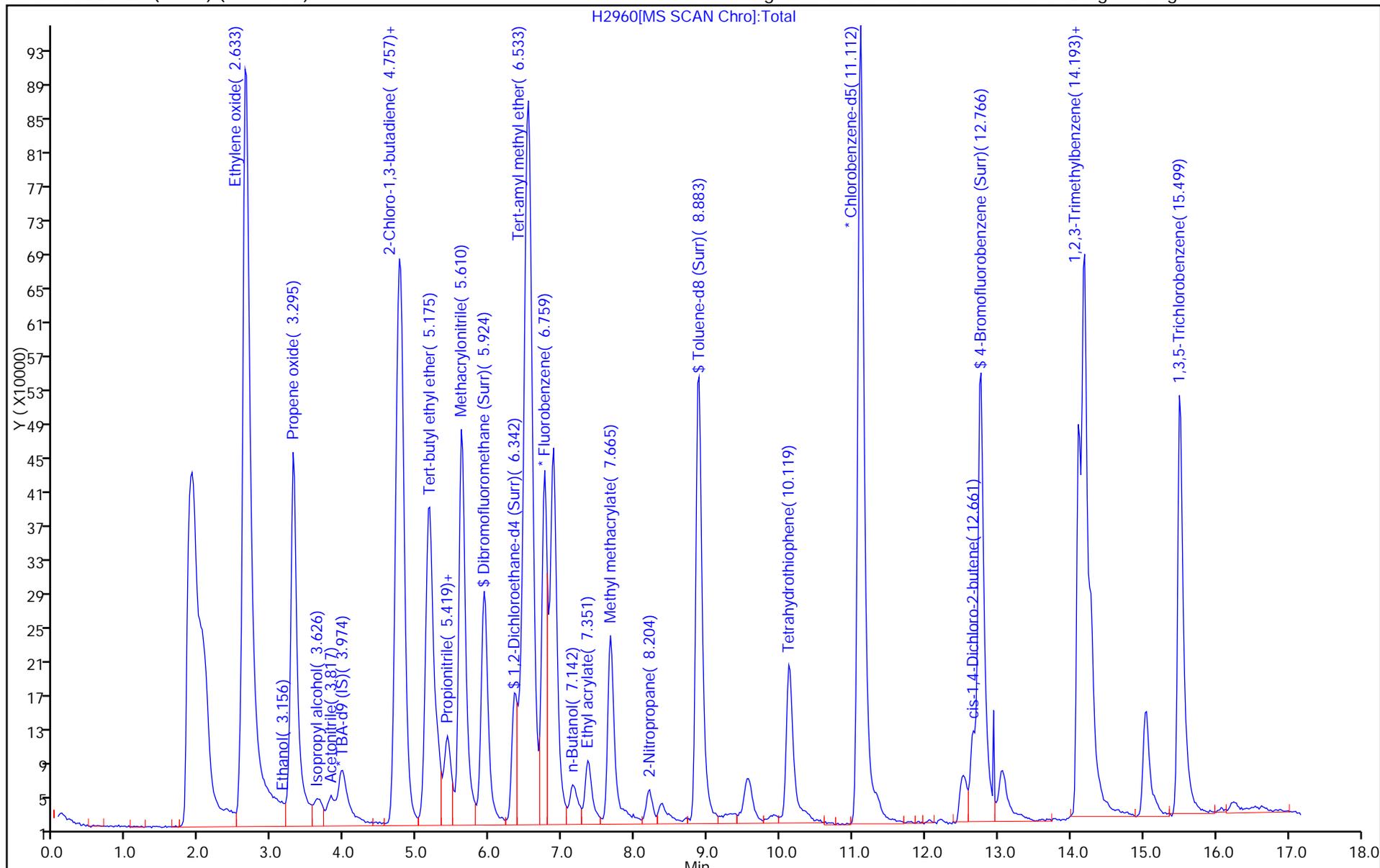
ALS Bottle#: 14

Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2961.D
 Lims ID: ic
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 28-May-2015 04:48:30 ALS Bottle#: 15 Worklist Smp#: 20
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ic
 Operator ID: BERGERB Instrument ID: VMS_H
 Sublist: chrom-AQ_VMSH_8260*sub99
 Method: \\Denchrom\ChromData\VMS_H\20150528-35452.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 28-May-2015 07:24:22 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK018

First Level Reviewer: wickhamt Date: 28-May-2015 06:49:25

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.975	3.974	0.001	99	193158	250.0	250.0	
* 2 Fluorobenzene	96	6.760	6.759	0.001	98	1119204	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.113	11.094	0.019	92	223366	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.107	14.106	0.001	98	396341	12.5	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.925	5.924	0.000	93	1592725	30.0	28.2	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	6.342	6.342	0.000	83	881719	30.0	28.2	
\$ 10 Toluene-d8 (Surr)	98	8.884	8.883	0.001	95	3504937	30.0	32.2	
\$ 11 4-Bromofluorobenzene (Surr	95	12.766	12.766	0.000	81	1920918	30.0	28.3	
34 Ethylene oxide	43	2.634	2.633	0.001	99	3313631	6000.0	6030.9	
39 Ethanol	45	3.122	3.156	-0.034	90	92015	1500.0	1472.0	
43 Propene oxide	58	3.296	3.295	0.001	95	3129672	1500.0	1491.7	
49 Isopropyl alcohol	45	3.626	3.626	0.000	45	156601	300.0	299.4	a
51 Acetonitrile	41	3.801	3.817	-0.016	97	239466	375.0	376.1	
62 Isopropyl ether	87	4.741	4.757	-0.016	99	949648	37.5	36.7	
63 2-Chloro-1,3-butadiene	53	4.793	4.792	0.001	92	1750155	30.0	29.6	
64 Tert-butyl ethyl ether	59	5.158	5.175	-0.017	99	3659958	37.5	34.8	
69 Ethyl acetate	43	5.402	5.419	-0.017	99	835914	60.0	58.9	
70 Propionitrile	54	5.437	5.454	-0.017	98	374048	375.0	369.8	
72 Methacrylonitrile	41	5.611	5.610	0.001	96	2645878	300.0	298.2	
83 Tert-amyl methyl ether	73	6.551	6.551	0.001	96	2980183	37.5	36.0	
85 n-Butanol	56	7.143	7.160	-0.017	94	237384	750.0	803.2	
87 Ethyl acrylate	55	7.352	7.351	0.001	0	693518	NC	NC	
91 Methyl methacrylate	100	7.665	7.665	0.000	95	277060	60.0	55.8	
95 2-Nitropropane	41	8.188	8.187	0.001	98	235853	60.0	64.4	
107 Tetrahydrothiophene	60	10.120	10.119	0.001	59	307294	30.0	31.9	
119 cis-1,4-Dichloro-2-butene	53	12.662	12.661	0.001	96	206859	30.0	29.6	
135 1,2,3-Trimethylbenzene	105	14.194	14.193	0.001	99	3206272	30.0	30.2	
140 1,3,5-Trichlorobenzene	180	15.500	15.516	-0.016	95	1552919	30.0	29.7	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

a - User Assigned ID

Reagents:

MV-568718-D_00002	Amount Added: 1.00	Units: uL
MV-Supp A_00011	Amount Added: 15.00	Units: uL
MV-ARCH SS A_00042	Amount Added: 2.40	Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2961.D

Injection Date: 28-May-2015 04:48:30

Instrument ID: VMS_H

Operator ID: BERGERB

Lims ID: ic

Worklist Smp#: 20

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

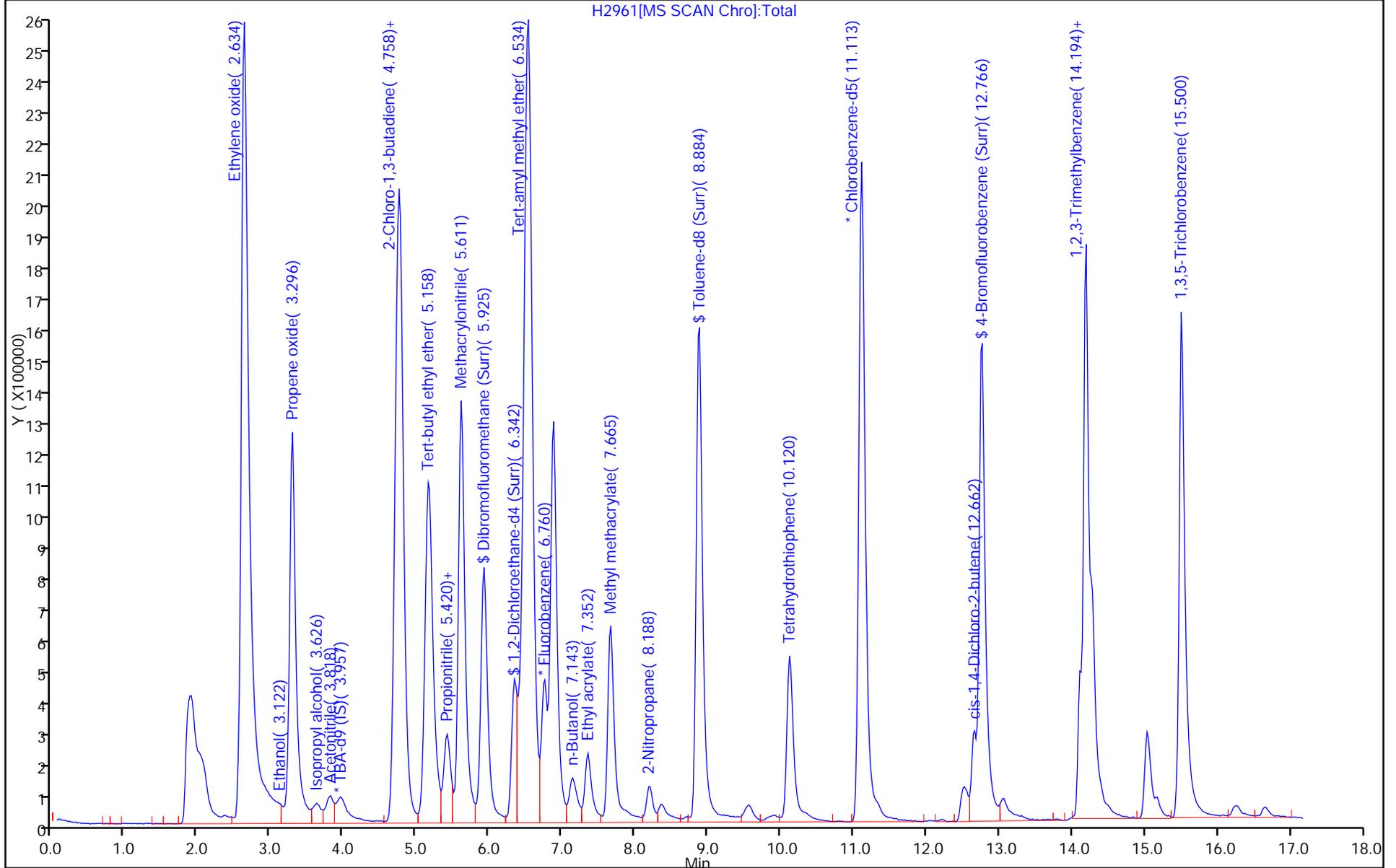
ALS Bottle#: 15

Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



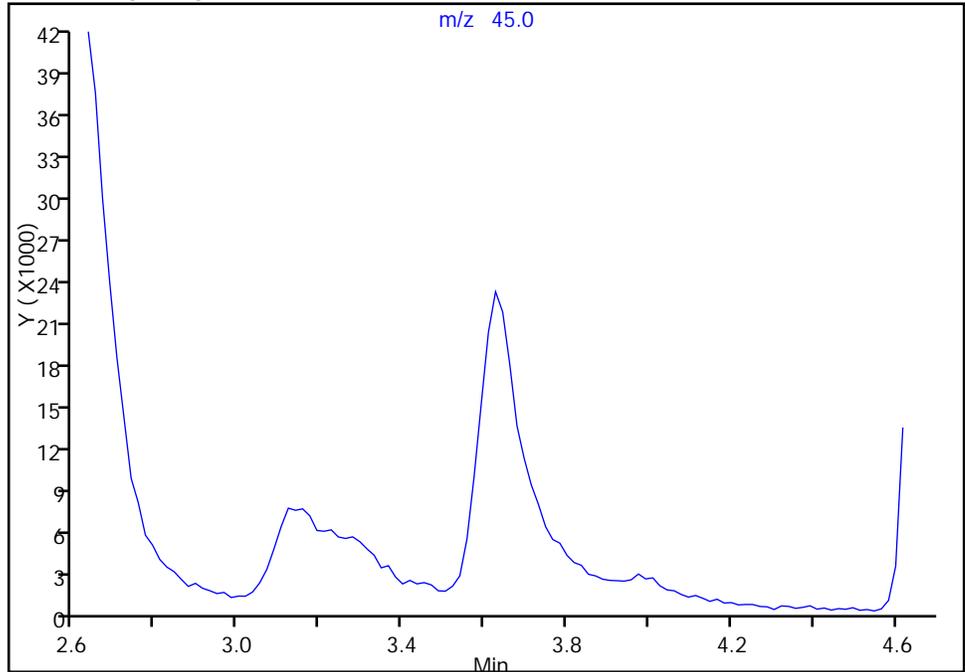
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2961.D
Injection Date: 28-May-2015 04:48:30 Instrument ID: VMS_H
Lims ID: ic
Client ID:
Operator ID: BERGERB ALS Bottle#: 15 Worklist Smp#: 20
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

49 Isopropyl alcohol, CAS: 67-63-0

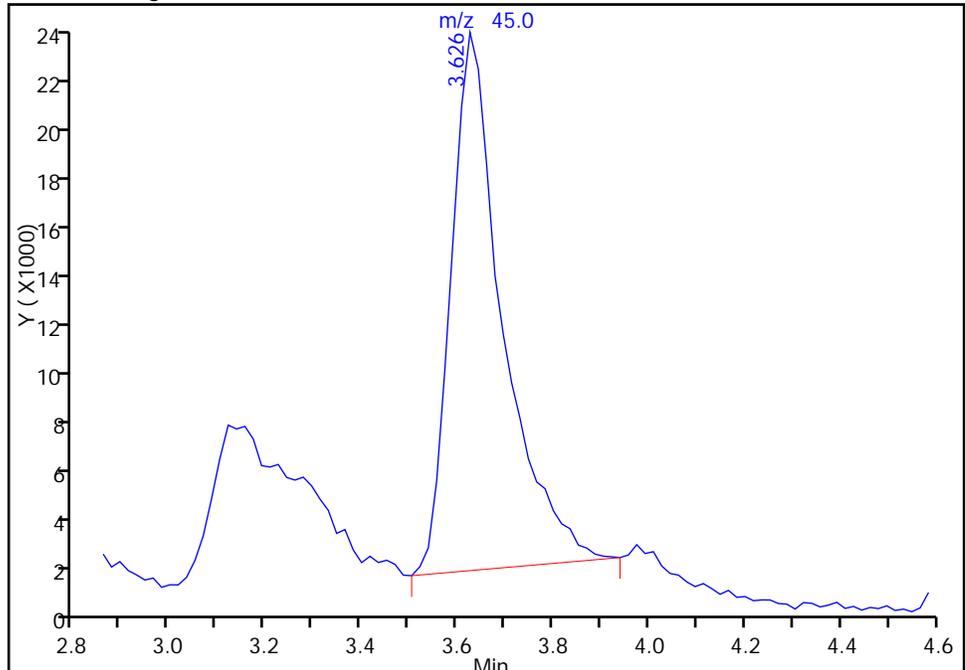
Not Detected
Expected RT: 3.63

Processing Integration Results



RT: 3.63
Area: 156601
Amount: 299.4198
Amount Units: ug/l

Manual Integration Results



Reviewer: wickhamt, 28-May-2015 06:49:25
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Lims ID: ic
 Client ID:
 Sample Type: IC Calib Level: 7
 Inject. Date: 28-May-2015 05:10:30 ALS Bottle#: 16 Worklist Smp#: 21
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ic
 Operator ID: BERGERB Instrument ID: VMS_H
 Sublist: chrom-AQ_VMSH_8260*sub99
 Method: \\Denchrom\ChromData\VMS_H\20150528-35452.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 28-May-2015 07:24:23 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK018

First Level Reviewer: wickhamt

Date: 28-May-2015 06:50:04

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.970	3.974	-0.004	98	188814	250.0	250.0	
* 2 Fluorobenzene	96	6.756	6.759	-0.003	98	1134348	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.108	11.094	0.014	93	259304	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.120	14.106	0.014	98	413886	12.5	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.920	5.924	-0.004	93	3238689	60.0	56.5	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	6.338	6.342	-0.004	83	1797526	60.0	56.6	
\$ 10 Toluene-d8 (Surr)	98	8.880	8.883	-0.003	95	7087877	60.0	56.0	
\$ 11 4-Bromofluorobenzene (Surr	95	12.762	12.766	-0.004	81	3915034	60.0	55.3	
34 Ethylene oxide	43	2.630	2.633	-0.003	99	6477092	12000	11631	
39 Ethanol	45	3.152	3.156	-0.004	91	200333	3000.0	3214.0	
43 Propene oxide	58	3.291	3.295	-0.004	95	6237685	3000.0	2933.5	
49 Isopropyl alcohol	45	3.640	3.626	0.014	98	312090	600.0	595.7	
51 Acetonitrile	41	3.814	3.817	-0.003	99	480531	750.0	755.6	
62 Isopropyl ether	87	4.754	4.757	-0.003	99	1898580	75.0	72.3	
63 2-Chloro-1,3-butadiene	53	4.789	4.792	-0.003	92	3499683	60.0	58.5	
64 Tert-butyl ethyl ether	59	5.172	5.175	-0.003	99	7387205	75.0	69.4	
69 Ethyl acetate	43	5.415	5.419	-0.004	99	1689137	120.0	117.4	
70 Propionitrile	54	5.450	5.454	-0.004	98	752658	750.0	734.2	
72 Methacrylonitrile	41	5.607	5.610	-0.003	96	5249270	600.0	583.8	
83 Tert-amyl methyl ether	73	6.547	6.551	-0.003	96	5944725	75.0	70.9	
85 n-Butanol	56	7.139	7.160	-0.021	94	479232	1500.0	1599.8	
87 Ethyl acrylate	55	7.348	7.351	-0.003	0	1402868	NC	NC	
91 Methyl methacrylate	100	7.661	7.665	-0.004	95	545200	120.0	108.4	
95 2-Nitropropane	41	8.201	8.187	0.014	97	474539	120.0	127.8	
107 Tetrahydrothiophene	60	10.116	10.119	-0.003	94	640849	60.0	57.4	
119 cis-1,4-Dichloro-2-butene	53	12.658	12.661	-0.003	93	412278	60.0	56.6	
135 1,2,3-Trimethylbenzene	105	14.190	14.193	-0.003	99	6472065	60.0	58.5	
140 1,3,5-Trichlorobenzene	180	15.513	15.516	-0.003	95	3310308	60.0	60.7	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

MV-568718-D_00002	Amount Added: 1.00	Units: uL
MV-Supp A_00011	Amount Added: 30.00	Units: uL
MV-ARCH SS A_00042	Amount Added: 4.80	Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D

Injection Date: 28-May-2015 05:10:30

Instrument ID: VMS_H

Operator ID: BERGERB

Lims ID: ic

Worklist Smp#: 21

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

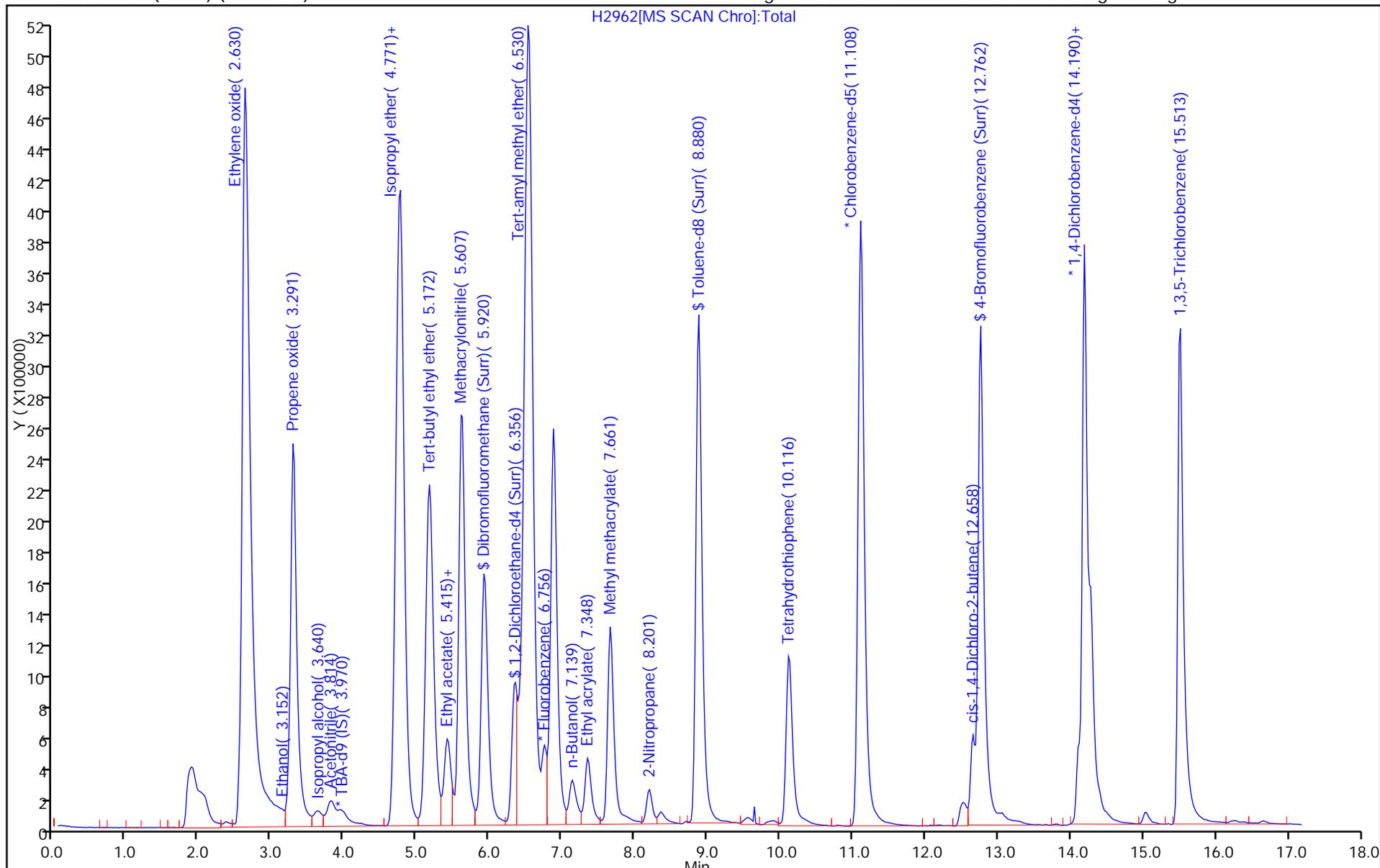
ALS Bottle#: 16

Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-70279-1 Analy Batch No.: 279871

SDG No.: _____

Instrument ID: VMS_Z GC Column: DB-624 (75. ID: 0.53 (mm)) Heated Purge: (Y/N) N

Calibration Start Date: 06/01/2015 19:51 Calibration End Date: 06/02/2015 01:06 Calibration ID: 22471

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-279871/9	Z8220.D
Level 2	IC 280-279871/10	Z8221.D
Level 3	IC 280-279871/16	Z8228.D
Level 4	IC 280-279871/11	Z8222.D
Level 5	IC 280-279871/17	Z8229.D
Level 6	IC 280-279871/12	Z8223.D
Level 7	IC 280-279871/18	Z8230.D
Level 8	IC 280-279871/13	Z8224.D
Level 9	ICIS 280-279871/19	Z8231.D
Level 10	IC 280-279871/14	Z8225.D
Level 11	IC 280-279871/20	Z8232.D
Level 12	IC 280-279871/15	Z8226.D
Level 13	IC 280-279871/21	Z8233.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10												
Dichlorodifluoromethane	0.4346 0.5621	0.3235 0.5002	0.5371	0.3562	0.5004	Lin1	-0.06 3	0.506 1						0.9970		0.9900	
Chloromethane	++++ 0.3619	0.2477 0.3332	0.3475	0.2618	0.3312	Lin2	-0.10 7	0.347 0		0.1000				0.9930		0.9900	
Vinyl chloride	0.3863 0.3767	0.3085 0.3384	0.3564	0.2956	0.3372	Ave		0.342 7			9.7		30.0				
Bromomethane	0.3766 0.3667	0.2901 0.3382	0.3527	0.2851	0.3447	Ave		0.336 3			10.6		15.0				
Chloroethane	0.2491 0.2357	0.1668 0.2153	0.2269	0.1823	0.2187	Ave		0.213 5			13.7		15.0				
Dichlorofluoromethane	0.8709 0.8915	0.7007 0.8301	0.8654	0.6934	0.8362	Ave		0.812 6			10.0		15.0				
Trichlorofluoromethane	0.9251 0.8063	0.6665 0.7111	0.7617	0.6455	0.7182	Ave		0.747 8			12.7		15.0				

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-70279-1 Analy Batch No.: 279871

SDG No.: _____

Instrument ID: VMS_Z GC Column: DB-624 (75. ID: 0.53 (mm)) Heated Purge: (Y/N) N

Calibration Start Date: 06/01/2015 19:51 Calibration End Date: 06/02/2015 01:06 Calibration ID: 22471

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10												
Ethanol		0.0005	++++	0.0004	0.0009	Lin1	0.0466	0.0003						0.9960		0.9900	
	0.0004		0.0004														
Ethyl ether	0.1812	0.1731		0.1576		Ave		0.1616			7.6		15.0				
	0.1633	0.1443	0.1564		0.1555												
Acrolein	++++	0.0097		0.0065		Lin1	0.0094	0.0071						0.9980		0.9900	
	0.0067	0.0072	0.0072		0.0071												
1,1-Dichloroethene	0.3385	0.3217		0.3257		Ave		0.3376			4.7		30.0				
	0.3679	0.3365	0.3464		0.3267												
Acetone	++++	++++		0.0209		Ave		0.0183			10.1		15.0				
	0.0186	0.0164	0.0190		0.0167												
1,1,2-Trichloro-1,2,2-trifluoroethane	0.5724	0.5077		0.5242		Ave		0.5179			6.1		15.0				
	0.5376	0.4915	0.5176		0.4747												
Isopropyl alcohol		0.0037	++++	0.0036	0.0034	Lin1	-0.047	0.0048						0.9930		0.9900	
	0.0044		0.0050														
Iodomethane	1.0742	0.9119		0.8957		Ave		0.9161			8.1		15.0				
	0.9237	0.8613	0.8930		0.8525												
Carbon disulfide	1.5132	1.2943		1.2728		Ave		1.3124			7.4		15.0				
	1.3387	1.2498	1.3046		1.2135												
Acetonitrile		0.0043	++++	0.0042	0.0014	Lin2	-0.094	0.0053						0.9940		0.9900	
	0.0051		0.0051														
3-Chloro-1-propene	0.6591	0.5322		0.5151		Ave		0.5363			10.7		15.0				
	0.5477	0.4967	0.5122		0.4909												
Methyl acetate	0.1013	0.0721		0.0729		Ave		0.0777			13.9		15.0				
	0.0766	0.0691	0.0768		0.0750												

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver

Job No.: 280-70279-1

Analy Batch No.: 279871

SDG No.: _____

Instrument ID: VMS_Z

GC Column: DB-624 (75. ID: 0.53 (mm))

Heated Purge: (Y/N) N

Calibration Start Date: 06/01/2015 19:51

Calibration End Date: 06/02/2015 01:06

Calibration ID: 22471

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10												
Methylene Chloride	++++ 0.3147	++++ 0.2720	0.2943	0.3464	0.2782	Ave		0.301 1			10.0		15.0				
tert-Butyl alcohol	++++ 0.6520	++++ 0.6288	0.7987	0.7981	0.6473	Ave		0.705 0			12.2		15.0				
Acrylonitrile	0.0238 0.0255	0.0232 0.0229	0.0245	0.0248	0.0242	Ave		0.024 1			3.7		15.0				
trans-1,2-Dichloroethene	0.3860 0.3805	0.3826 0.3596	0.3742	0.3669	0.3521	Ave		0.371 7			3.4		15.0				
Methyl tert-butyl ether	++++ 0.5136	0.4893 0.4651	0.5125	0.5047	0.5038	Ave		0.498 2			3.7		15.0				
Hexane	2.7475 2.1930	2.3250 2.0490	2.1556	2.1065	1.9623	Ave		2.219 9			11.7		15.0				
1,1-Dichloroethane	0.8191 0.6893	0.7172 0.6475	0.6724	0.6667	0.6458	Ave		0.694 0		0.1000	8.7		15.0				
Vinyl acetate	0.3927 0.3433	0.3467 0.3345	0.3439	0.3793	0.3592	Ave		0.357 1			6.0		15.0				
Isopropyl ether		0.2337	0.2760 0.2191	0.2355	0.2253	Ave		0.236 0			8.7		15.0				
2-Chloro-1,3-butadiene		0.4637	0.5563 0.4378	0.4718	0.4434	Ave		0.467 9			9.8		15.0				
Tert-butyl ethyl ether		0.8217	0.9859 0.7519	0.8306	0.7776	Ave		0.827 0			10.0		15.0				
cis-1,2-Dichloroethene	0.4061 0.3689	0.3445 0.3535	0.3677	0.3627	0.3553	Ave		0.365 5			5.4		15.0				

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-70279-1 Analy Batch No.: 279871

SDG No.: _____

Instrument ID: VMS_Z GC Column: DB-624 (75. ID: 0.53 (mm)) Heated Purge: (Y/N) N

Calibration Start Date: 06/01/2015 19:51 Calibration End Date: 06/02/2015 01:06 Calibration ID: 22471

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10												
	LVL 11	LVL 12	LVL 13														
2-Butanone (MEK)	++++ 0.0430	0.0294 0.0369	0.0439	0.0381	0.0404	Ave		0.038 6			13.7		15.0				
2,2-Dichloropropane	2.3635 0.7004	1.1047 0.5497	0.6240	0.8708	0.5594	Lin2	0.540 4	0.567 3					0.9980			0.9900	
Propionitrile		0.0070	0.0078 0.0074	0.0070	0.0064	Ave		0.007 2			7.2		15.0				
Methacrylonitrile		0.0507	0.0542 0.0486	0.0495	0.0485	Ave		0.050 4			4.2		15.0				
sec-Butyl Alcohol	0.8408 0.8266	0.7549 0.8365	0.9241	0.8940	0.8398	Ave		0.845 2			6.3		15.0				
Bromochloromethane	++++ 0.1973	0.1810 0.1799	0.1876	0.1962	0.1852	Ave		0.187 9			4.0		15.0				
Chloroform	0.6783 0.6584	0.6683 0.6191	0.6434	0.6456	0.6207	Ave		0.647 7			3.5		30.0				
Tetrahydrofuran	++++ 0.0230	++++ 0.0227	0.0238	0.0281	0.0246	Ave		0.024 4			8.9		15.0				
1,1,1-Trichloroethane	0.6370 0.6377	0.6071 0.5893	0.6187	0.6120	0.5783	Ave		0.611 4			3.7		15.0				
Cyclohexane	0.6227 0.6074	0.5556 0.5579	0.5971	0.5795	0.5432	Ave		0.580 5			5.1		15.0				
1,1-Dichloropropene	0.6253 0.5626	0.5526 0.5130	0.5452	0.5561	0.4992	Ave		0.550 6			7.4		15.0				
Carbon tetrachloride	0.7205 0.6637	0.6573 0.6293	0.6533	0.6682	0.6122	Ave		0.657 8			5.2		15.0				

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver

Job No.: 280-70279-1

Analy Batch No.: 279871

SDG No.: _____

Instrument ID: VMS_Z

GC Column: DB-624 (75. ID: 0.53 (mm))

Heated Purge: (Y/N) N

Calibration Start Date: 06/01/2015 19:51

Calibration End Date: 06/02/2015 01:06

Calibration ID: 22471

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10												
Isobutyl alcohol	+++++	+++++	0.2963	0.3496	0.2649	Ave		0.302 9			13.0		15.0				
	0.3378	0.2662															
1,2-Dichloroethane	0.3269	0.2824	0.2616	0.2766	0.2517	Ave		0.272 1			10.5		15.0				
	0.2687	0.2366															
Benzene	0.9695	0.9375	0.9625	1.0160	0.9191	Ave		0.962 7			3.4		15.0				
	0.9895	0.9448															
Tert-amyl methyl ether		0.6936	0.6298	0.6564	0.7222	Ave		0.666 2			5.6		15.0				
	0.6698		0.6256														
n-Butanol		0.0022	+++++	0.0021	0.0019	Ave		0.002 1			7.2		15.0				
	0.0022		0.0021														
Trichloroethene	0.4994	0.4292	0.4513	0.4346	0.4206	Ave		0.445 2			6.1		15.0				
	0.4553	0.4263															
2-Pentanone	0.1140	0.0736	0.0881	0.0953	0.0873	Ave		0.089 5			14.5		15.0				
	0.0891	0.0787															
1,2-Dichloropropane	0.4929	0.4060	0.3659	0.3905	0.3531	Ave		0.391 3			12.7		30.0				
	0.3842	0.3463															
Methylcyclohexane	0.5972	0.4420	0.5065	0.5116	0.4672	Ave		0.503 1			9.9		15.0				
	0.5210	0.4761															
Dibromomethane	0.2193	0.2313	0.2137	0.2201	0.2105	Ave		0.215 1			5.4		15.0				
	0.2171	0.1935															
Methyl methacrylate		0.0420	0.0385	0.0411	0.0372	Ave		0.040 0			5.1		15.0				
	0.0420		0.0389														
Bromodichloromethane	0.4754	0.5409	0.5690	0.5547	0.5659	Ave		0.549 6			6.5		15.0				
	0.5869	0.5541															

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-70279-1 Analy Batch No.: 279871

SDG No.: _____

Instrument ID: VMS_Z GC Column: DB-624 (75. ID: 0.53 (mm)) Heated Purge: (Y/N) N

Calibration Start Date: 06/01/2015 19:51 Calibration End Date: 06/02/2015 01:06 Calibration ID: 22471

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10												
2-Nitropropane	0.0203	0.0185	++++ 0.0174	0.0183	0.0159	Ave	0.018 1			8.8	15.0						
2-Chloroethyl vinyl ether	0.1420 0.1348	0.1582 0.1136	0.1242	0.1332	0.1200	Ave	0.132 3			11.3	15.0						
cis-1,3-Dichloropropene	2.1274 2.0399	2.0906 1.9068	2.0224	2.0497	2.0186	Ave	2.036 5			3.4	15.0						
4-Methyl-2-pentanone (MIBK)	0.1312 0.1294	0.0982 0.1104	0.1281	0.1107	0.1238	Ave	0.118 8			10.5	15.0						
Toluene	1.3303 1.1122	1.0731 1.0102	1.0626	1.0463	1.0037	Ave	1.091 2			10.2	30.0						
trans-1,3-Dichloropropene	0.3766 0.3429	0.3351 0.3039	0.3287	0.3412	0.3241	Ave	0.336 0			6.6	15.0						
Ethyl methacrylate	1.2646 1.0933	1.5331 0.9916	1.1490	1.2650	1.1126	Ave	1.201 3			14.6	15.0						
1,1,2-Trichloroethane	0.2084 0.2102	0.2179 0.1906	0.2059	0.2006	0.2023	Ave	0.205 1			4.2	15.0						
1,3-Dichloropropane	1.5083 1.4598	1.5195 1.3464	1.4731	1.4471	1.4575	Ave	1.458 8			3.9	15.0						
Tetrachloroethene	1.7345 1.8207	1.6753 1.7507	1.8085	1.7868	1.7334	Ave	1.758 6			2.9	15.0						
2-Hexanone	0.2823 0.3371	0.3076 0.3007	0.3453	0.2979	0.3383	Ave	0.315 6			7.7	15.0						
Chlorodibromomethane	1.7233 1.8450	1.7543 1.7740	1.8501	1.8091	1.8554	Ave	1.801 6			2.9	15.0						

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-70279-1 Analy Batch No.: 279871

SDG No.: _____

Instrument ID: VMS_Z GC Column: DB-624 (75. ID: 0.53 (mm)) Heated Purge: (Y/N) N

Calibration Start Date: 06/01/2015 19:51 Calibration End Date: 06/02/2015 01:06 Calibration ID: 22471

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10												
	LVL 11	LVL 12	LVL 13														
1,2-Dibromoethane	1.2874 1.2608	1.2783 1.1467	1.2346	1.2608	1.2458	Ave		1.244 9			3.8		15.0				
1-Chlorohexane	2.7963 2.2172	2.3022 2.0872	2.1461	2.1349	2.0306	Ave		2.244 9			11.5		15.0				
Chlorobenzene	3.1453 3.3886	3.3032 3.3174	3.3434	3.3415	3.3700	Ave		3.315 6		0.3000	2.4		15.0				
1,1,1,2-Tetrachloroethane	1.6144 1.6287	1.6798 1.6076	1.6377	1.6165	1.6604	Ave		1.635 0			1.6		15.0				
Ethylbenzene	1.6528 1.6290	1.5542 1.5356	1.6051	1.5974	1.5314	Ave		1.586 5			3.0		30.0				
m-Xylene & p-Xylene	2.2626 2.1509	2.0277 2.1128	2.1360	2.1072	2.1254	Ave		2.131 8			3.3		15.0				
o-Xylene	1.9148 1.9300	1.8870 1.8231	1.8591	1.8781	1.8377	Ave		1.875 7			2.1		15.0				
Styrene	3.1004 3.0797	3.0067 3.0092	3.1223	3.0721	3.0829	Ave		3.067 6			1.4		15.0				
Bromoform	0.8983 1.0708	1.0261 1.0151	1.1024	1.0486	1.1146	Ave		1.039 4		0.1000	7.0		15.0				
Isopropylbenzene	4.4102 3.7521	3.7379 3.4654	3.6715	3.6576	3.3393	Ave		3.719 2			9.1		15.0				
cis-1,4-Dichloro-2-butene		0.1166	++++	0.1129	0.1470	Ave		0.118 1			14.2		15.0				
	0.1084		0.1054														
Cyclohexanone	++++ 0.0138	++++ 0.0126	0.0148	0.0124	0.0135	Ave		0.013 4			7.1		15.0				

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-70279-1 Analy Batch No.: 279871

SDG No.: _____

Instrument ID: VMS_Z GC Column: DB-624 (75. ID: 0.53 (mm)) Heated Purge: (Y/N) N

Calibration Start Date: 06/01/2015 19:51 Calibration End Date: 06/02/2015 01:06 Calibration ID: 22471

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10												
Bromobenzene	0.9196 0.9795	0.9223 0.9239	0.9712	0.9594	0.9338	Ave	0.944 3			2.7	15.0						
1,1,2,2-Tetrachloroethane	0.7171 0.6950	0.7329 0.6302	0.6984	0.7114	0.6699	Ave	0.693 6		0.3000	4.9	15.0						
1,2,3-Trichloropropane	++++ 0.1892	0.2272 0.1547	0.1806	0.2221	0.1713	Ave	0.190 9			15.0	15.0						
trans-1,4-Dichloro-2-butene	++++ 0.1434	0.1344 0.1196	0.1322	0.1405	0.1275	Ave	0.132 9			6.5	15.0						
N-Propylbenzene	1.0315 0.9821	0.9540 0.9154	0.9726	0.9542	0.8779	Ave	0.955 4			5.1	15.0						
2-Chlorotoluene	++++ 0.8131	0.8267 0.7579	0.8083	0.8113	0.7484	Ave	0.794 3			4.1	15.0						
4-Chlorotoluene	1.0748 0.9150	0.8736 0.9112	0.9192	0.8816	0.8779	Ave	0.921 9			7.6	15.0						
1,3,5-Trimethylbenzene	3.2326 2.8254	2.7760 2.6553	2.8114	2.7670	2.6137	Ave	2.811 6			7.2	15.0						
tert-Butylbenzene	3.2942 3.1818	3.0997 2.9861	3.1851	3.1302	2.8982	Ave	3.110 8			4.3	15.0						
1,2,4-Trimethylbenzene	3.3457 2.7591	2.6161 2.5537	2.7389	2.6644	2.5407	Ave	2.745 5			10.1	15.0						
sec-Butylbenzene	0.8847 0.8344	0.8173 0.7690	0.8089	0.8393	0.7493	Ave	0.814 7			5.6	15.0						
1,3-Dichlorobenzene	1.6118 1.5972	1.5078 1.5784	1.6023	1.6438	1.5971	Ave	1.591 2			2.6	15.0						

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver

Job No.: 280-70279-1

Analy Batch No.: 279871

SDG No.: _____

Instrument ID: VMS_Z

GC Column: DB-624 (75. ID: 0.53 (mm))

Heated Purge: (Y/N) N

Calibration Start Date: 06/01/2015 19:51

Calibration End Date: 06/02/2015 01:06

Calibration ID: 22471

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10												
	LVL 11	LVL 12	LVL 13														
p-Isopropyltoluene	3.6663 3.5928	3.4518 3.4190	3.5691	3.5402	3.3521	Ave		3.513 0			3.1		15.0				
1,4-Dichlorobenzene	1.9801 1.9881	1.8786 1.7563	1.9628	1.9178	1.7888	Ave		1.896 1			4.9		15.0				
1,2,3-Trimethylbenzene		2.4361	2.7432 2.4418	2.4461	2.4363	Ave		2.480 5			5.3		15.0				
1,2-Dichlorobenzene	1.3577 1.4379	1.4035 1.3518	1.4279	1.4115	1.3700	Ave		1.394 3			2.5		15.0				
n-Butylbenzene	3.2597 3.2173	3.1040 2.9730	3.1966	3.1717	2.9275	Ave		3.121 4			4.1		15.0				
1,2-Dibromo-3-Chloropropane	0.1232 0.1330	0.1468 0.1174	0.1409	0.1554	0.1308	Ave		0.135 3			9.8		15.0				
1,2,4-Trichlorobenzene	1.0598 1.0530	1.0496 0.9475	1.0776	1.0363	0.9915	Ave		1.030 8			4.4		15.0				
Hexachlorobutadiene	0.9577 1.0121	0.9652 0.8820	0.9999	0.9900	0.8712	Ave		0.954 0			5.9		15.0				
Naphthalene	1.0400 1.0132	0.9143 0.8484	1.0043	0.9914	0.9297	Ave		0.963 0			7.0		15.0				
1,2,3-Trichlorobenzene	0.7859 0.7857	0.8074 0.7031	0.8151	0.8779	0.7556	Ave		0.790 1			6.8		15.0				
Dibromofluoromethane (Surr)		0.6128	++++ 0.5745	0.5894	0.6338	Ave		0.597 3			4.3		15.0				
1,2-Dichloroethane-d4 (Surr)		0.2353	++++ 0.2097	0.2220	0.2472	Ave		0.227 0			6.4		15.0				
	0.2208																

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-70279-1 Analy Batch No.: 279871

SDG No.: _____

Instrument ID: VMS_Z GC Column: DB-624 (75. ID: 0.53 (mm)) Heated Purge: (Y/N) N

Calibration Start Date: 06/01/2015 19:51 Calibration End Date: 06/02/2015 01:06 Calibration ID: 22471

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10												
Toluene-d8 (Surr)		4.0973	++++ 3.9991	4.0318	4.2216	Ave		4.059 5			2.6		15.0				
4-Bromofluorobenzene (Surr)	1.3464	1.4222	++++ 1.3887	1.4212	1.5076	Ave		1.417 2			4.2		15.0				

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-70279-1 Analy Batch No.: 279871

SDG No.: _____

Instrument ID: VMS_Z GC Column: DB-624 (75. ID: 0.53 (mm)) Heated Purge: (Y/N) N

Calibration Start Date: 06/01/2015 19:51 Calibration End Date: 06/02/2015 01:06 Calibration ID: 22471

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-279871/9	Z8220.D
Level 2	IC 280-279871/10	Z8221.D
Level 3	IC 280-279871/16	Z8228.D
Level 4	IC 280-279871/11	Z8222.D
Level 5	IC 280-279871/17	Z8229.D
Level 6	IC 280-279871/12	Z8223.D
Level 7	IC 280-279871/18	Z8230.D
Level 8	IC 280-279871/13	Z8224.D
Level 9	ICIS 280-279871/19	Z8231.D
Level 10	IC 280-279871/14	Z8225.D
Level 11	IC 280-279871/20	Z8232.D
Level 12	IC 280-279871/15	Z8226.D
Level 13	IC 280-279871/21	Z8233.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7	LVL 8	LVL 9	LVL 10	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10
Dichlorodifluoromethane	FB	Lin1	9444	22887		50831		0.300	1.00		2.00	
			197878		381532		1087743		5.00		10.0		30.0
Chloromethane	FB	Lin2	++++	17520		37348		++++	1.00		2.00	
			127389	1452620	246875		720036		5.00	60.0	10.0		30.0
Vinyl chloride	FB	Ave	8396	21826		42172		0.300	1.00		2.00	
			132609	1474978	253155		732895		5.00	60.0	10.0		30.0
Bromomethane	FB	Ave	8185	20520		40673		0.300	1.00		2.00	
			129087	1474477	250556		749242		5.00	60.0	10.0		30.0
Chloroethane	FB	Ave	5413	11803		26006		0.300	1.00		2.00	
			82993	938591	161192		475419		5.00	60.0	10.0		30.0
Dichlorofluoromethane	FB	Ave	18927	49573		98938		0.300	1.00		2.00	
			313850	3618478	614757		1817595		5.00	60.0	10.0		30.0
Trichlorofluoromethane	FB	Ave	20104	47150		92098		0.300	1.00		2.00	
			283853	3099924	541088		1561289		5.00	60.0	10.0		30.0
Ethanol	FB	Lin1		8732	++++	14039				++++	500	100
			40345	76854		6426		1500	250	3000		

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-70279-1 Analy Batch No.: 279871

SDG No.: _____

Instrument ID: VMS_Z GC Column: DB-624 (75. ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/01/2015 19:51 Calibration End Date: 06/02/2015 01:06 Calibration ID: 22471

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6 LVL 11	LVL 2 LVL 7 LVL 12	LVL 3 LVL 8 LVL 13	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6 LVL 11	LVL 2 LVL 7 LVL 12	LVL 3 LVL 8 LVL 13	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl ether	FB	Ave	3937 57495	12249 628994	111121	22485	338088	0.300 5.00	1.00 60.0	10.0	2.00	30.0
Acrolein	FB	Lin1	++++ 23535	6885 315348	51470	9302	154157	++++ 50.0	10.00 600	100.0	20.0	300
1,1-Dichloroethene	FB	Ave	7357 129531	22760 1466700	246057	46473	710092	0.300 5.00	1.00 60.0	10.0	2.00	30.0
Acetone	FB	Ave	++++ 26192	++++ 286147	54011	11957	145587	++++ 20.0	++++ 240	40.0	8.00	120
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	12439 189260	35917 2142355	367696	74798	1031781	0.300 5.00	1.00 60.0	10.0	2.00	30.0
Isopropyl alcohol	FB	Lin1	94673	13218	++++ 207460	25584	4965	300	50.0	++++ 600	100	20.0
Iodomethane	FB	Ave	23345 325203	64512 3754470	634394	127810	1853234	0.300 5.00	1.00 60.0	10.0	2.00	30.0
Carbon disulfide	FB	Ave	32885 471275	91561 5448256	926772	181608	2637848	0.300 5.00	1.00 60.0	10.0	2.00	30.0
Acetonitrile	FB	Lin2	137504	19429	++++ 268353	36616	2581	375	62.5	++++ 750	125	25.0
3-Chloro-1-propene	FB	Ave	14325 192811	37647 2165396	363864	73501	1067023	0.300 5.00	1.00 60.0	10.0	2.00	30.0
Methyl acetate	FB	Ave	11011 134921	25503 1506981	272932	51975	815378	1.50 25.0	5.00 300	50.0	10.0	150
Methylene Chloride	FB	Ave	++++ 110789	++++ 1185643	209096	49429	604694	++++ 5.00	++++ 60.0	10.0	2.00	30.0
tert-Butyl alcohol	TBA	Ave	++++ 21274	++++ 245647	49958	10528	130197	++++ 50.0	++++ 600	100	20.0	300

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-70279-1 Analy Batch No.: 279871

SDG No.: _____

Instrument ID: VMS_Z GC Column: DB-624 (75. ID: 0.53 (mm)) Heated Purge: (Y/N) N

Calibration Start Date: 06/01/2015 19:51 Calibration End Date: 06/02/2015 01:06 Calibration ID: 22471

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6 LVL 11	LVL 2 LVL 7 LVL 12	LVL 3 LVL 8 LVL 13	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6 LVL 11	LVL 2 LVL 7 LVL 12	LVL 3 LVL 8 LVL 13	LVL 4 LVL 9	LVL 5 LVL 10
Acrylonitrile	FB	Ave	5172 89636	16436 998899	173722	35396	526274	3.00 50.0	10.0 600	100	20.0	300
trans-1,2-Dichloroethene	FB	Ave	8389 133969	27068 1567693	265792	52351	765281	0.300 5.00	1.00 60.0	10.0	2.00	30.0
Methyl tert-butyl ether	FB	Ave	++++ 180818	34618 2027518	364087	72009	1095099	++++ 5.00	1.00 60.0	10.0	2.00	30.0
Hexane	CBZ	Ave	15161 189204	39591 2117048	367772	72815	999614	0.300 5.00	1.00 60.0	10.0	2.00	30.0
1,1-Dichloroethane	FB	Ave	17801 242667	50738 2822521	477644	95133	1403771	0.300 5.00	1.00 60.0	10.0	2.00	30.0
Vinyl acetate	FB	Ave	17068 241708	49059 2916084	488647	108247	1561638	0.600 10.0	2.00 120	20.0	4.00	60.0
Isopropyl ether	FB	Ave	605338	104924	24599 1143693	198751	42614	37.5	6.25	1.25 75.0	12.5	2.50
2-Chloro-1,3-butadiene	FB	Ave	930487	166531	39659 1828467	312942	68306	30.0	5.00	1.00 60.0	10.0	2.00
Tert-butyl ethyl ether	FB	Ave	2126920	368867	87867 3925452	685981	150317	37.5	6.25	1.25 75.0	12.5	2.50
cis-1,2-Dichloroethene	FB	Ave	8825 129876	24370 1540802	261207	51758	772304	0.300 5.00	1.00 60.0	10.0	2.00	30.0
2-Butanone (MEK)	FB	Ave	++++ 60602	8322 642576	124882	21743	351302	++++ 20.0	4.00 240	40.0	8.00	120
2,2-Dichloropropane	FB	Lin2	51366 246570	78153 2396091	443305	124249	1216038	0.300 5.00	1.00 60.0	10.0	2.00	30.0
Propionitrile	FB	Ave	205255	31600	6925 383945	61483	11516	375	62.5	12.5 750	125	25.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-70279-1 Analy Batch No.: 279871

SDG No.: _____

Instrument ID: VMS_Z GC Column: DB-624 (75. ID: 0.53 (mm)) Heated Purge: (Y/N) N

Calibration Start Date: 06/01/2015 19:51 Calibration End Date: 06/02/2015 01:06 Calibration ID: 22471

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 2	LVL 3	LVL 4	LVL 5	
			LVL 6	LVL 7	LVL 8	LVL 9	LVL 10	LVL 7	LVL 8	LVL 9	LVL 10	
			LVL 11	LVL 12	LVL 13		LVL 11	LVL 12	LVL 13			
Methacrylonitrile	FB	Ave		182139	38613	349031	70175		50.0	10.0	100	20.0
			1097152		2028469			300		600		
sec-Butyl Alcohol	TBA	Ave	4942	14174	173414	35380	506782	9.00	30.0	300	60.0	900
			80906	980432				150	1800			
Bromochloromethane	FB	Ave	++++	12807	133280	27989	402650	++++	1.00	10.0	2.00	30.0
			69476	784123				5.00	60.0			
Chloroform	FB	Ave	14741	47280	457054	92122	1349308	0.300	1.00	10.0	2.00	30.0
			231774	2698562				5.00	60.0			
Tetrahydrofuran	FB	Ave	++++	++++	33811	8015	107029	++++	++++	20.0	4.00	60.0
			16177	197964				10.0	120			
1,1,1-Trichloroethane	FB	Ave	13844	42946	439495	87320	1257070	0.300	1.00	10.0	2.00	30.0
			224486	2568874				5.00	60.0			
Cyclohexane	FB	Ave	13533	39308	424175	82685	1180756	0.300	1.00	10.0	2.00	30.0
			213847	2431981				5.00	60.0			
1,1-Dichloropropene	FB	Ave	13590	39095	387308	79353	1085118	0.300	1.00	10.0	2.00	30.0
			198074	2236124				5.00	60.0			
Carbon tetrachloride	FB	Ave	15659	46502	464090	95339	1330700	0.300	1.00	10.0	2.00	30.0
			233643	2743096				5.00	60.0			
Isobutyl alcohol	TBA	Ave	++++	++++	46336	11529	133187	++++	++++	250	50.0	750
			27555	259962				125	1500			
1,2-Dichloroethane	FB	Ave	7105	19977	185869	39471	547065	0.300	1.00	10.0	2.00	30.0
			94582	1031566				5.00	60.0			
Benzene	FB	Ave	21069	66323	683703	144968	1997983	0.300	1.00	10.0	2.00	30.0
			348365	4118414				5.00	60.0			
Tert-amyl methyl ether	FB	Ave		311360	56125	579115	130703		6.25	1.25	12.5	2.50
			1792767		3266290			37.5		75.0		

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-70279-1 Analy Batch No.: 279871

SDG No.: _____

Instrument ID: VMS_Z GC Column: DB-624 (75. ID: 0.53(mm)) Heated Purge: (Y/N) N

Calibration Start Date: 06/01/2015 19:51 Calibration End Date: 06/02/2015 01:06 Calibration ID: 22471

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 2	LVL 3	LVL 4	LVL 5	
			LVL 6	LVL 7	LVL 8	LVL 9	LVL 10	LVL 7	LVL 8	LVL 9	LVL 10	
			LVL 11	LVL 12	LVL 13		LVL 11	LVL 12	LVL 13			
n-Butanol	FB	Ave		19811	+++++	37029	6708		125	+++++	250	50.0
			119933		219681			750		1500		
Trichloroethene	FB	Ave	10854	30363	320597	62007	914229	0.300	1.00	10.0	2.00	30.0
			160275	1858238				5.00	60.0			
2-Pentanone	FB	Ave	9914	20839	250206	54409	759169	1.20	4.00	40.0	8.00	120
			125530	1371943				20.0	240			
1,2-Dichloropropane	FB	Ave	10712	28719	259897	55717	767521	0.300	1.00	10.0	2.00	30.0
			135267	1509707				5.00	60.0			
Methylcyclohexane	FB	Ave	12979	31269	359785	72994	1015567	0.300	1.00	10.0	2.00	30.0
			183415	2075561				5.00	60.0			
Dibromomethane	FB	Ave	4765	16365	151836	31409	457492	0.300	1.00	10.0	2.00	30.0
			76437	843523				5.00	60.0			
Methyl methacrylate	FB	Ave		5489	58050	10763				2.00		4.00
			179939	30202	325155			60.0	10.0	120	20.0	
Bromodichloromethane	FB	Ave	10331	38269	404225	79141	1230228	0.300	1.00	10.0	2.00	30.0
			206622	2415547				5.00	60.0			
2-Nitropropane	FB	Ave		13269	+++++	25839	4613		10.0	+++++	20.0	4.00
			86917		145614			60.0		120		
2-Chloroethyl vinyl ether	FB	Ave	3085	11193	88240	19004	260802	0.300	1.00	10.0	2.00	30.0
			47448	495336				5.00	60.0			
cis-1,3-Dichloropropene	CBZ	Ave	11739	35599	345041	70851	1028276	0.300	1.00	10.0	2.00	30.0
			175998	1970157				5.00	60.0			
4-Methyl-2-pentanone (MIBK)	FB	Ave	11409	27780	364127	63178	1076765	1.20	4.00	40.0	8.00	120
			182208	1924711				20.0	240			
Toluene	FB	Ave	28910	75915	754816	149298	2181915	0.300	1.00	10.0	2.00	30.0
			391559	4403467				5.00	60.0			

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-70279-1 Analy Batch No.: 279871

SDG No.: _____

Instrument ID: VMS_Z GC Column: DB-624 (75. ID: 0.53(mm)) Heated Purge: (Y/N) N

Calibration Start Date: 06/01/2015 19:51 Calibration End Date: 06/02/2015 01:06 Calibration ID: 22471

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)					
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	
			LVL 6	LVL 7	LVL 8	LVL 9	LVL 10	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10	
			LVL 11	LVL 12	LVL 13				LVL 11	LVL 12	LVL 13		
trans-1,3-Dichloropropene	FB	Ave	8185 120706	23705 1324639	233476	48678	704478	0.300 5.00	1.00 60.0	10.0	2.00	30.0	
Ethyl methacrylate	CBZ	Ave	6978 94326	26107 1024509	196034	43727	566751	0.300 5.00	1.00 60.0	10.0	2.00	30.0	
1,1,2-Trichloroethane	FB	Ave	4530 73994	15417 830663	146252	28623	439746	0.300 5.00	1.00 60.0	10.0	2.00	30.0	
1,3-Dichloropropane	CBZ	Ave	8323 125949	25874 1391065	251323	50022	742478	0.300 5.00	1.00 60.0	10.0	2.00	30.0	
Tetrachloroethene	CBZ	Ave	9571 157087	28527 1808825	308552	61763	883027	0.300 5.00	1.00 60.0	10.0	2.00	30.0	
2-Hexanone	CBZ	Ave	6231 116347	20951 1242938	235648	41184	689287	1.20 20.0	4.00 240	40.0	8.00	120	
Chlorodibromomethane	CBZ	Ave	9509 159179	29873 1832930	315643	62535	945178	0.300 5.00	1.00 60.0	10.0	2.00	30.0	
1,2-Dibromoethane	CBZ	Ave	7104 108773	21767 1184800	210640	43581	634624	0.300 5.00	1.00 60.0	10.0	2.00	30.0	
1-Chlorohexane	CBZ	Ave	15430 191294	39203 2156479	366142	73796	1034395	0.300 5.00	1.00 60.0	10.0	2.00	30.0	
Chlorobenzene	CBZ	Ave	17356 292359	56248 3427613	570409	115504	1716742	0.300 5.00	1.00 60.0	10.0	2.00	30.0	
1,1,1,2-Tetrachloroethane	CBZ	Ave	8908 140522	28604 1661033	279409	55875	845841	0.300 5.00	1.00 60.0	10.0	2.00	30.0	
Ethylbenzene	CBZ	Ave	9120 140545	26465 1586584	273851	55217	780116	0.300 5.00	1.00 60.0	10.0	2.00	30.0	
m-Xylene & p-Xylene	CBZ	Ave	12485 185570	34529 2182959	364421	72836	1082709	0.300 5.00	1.00 60.0	10.0	2.00	30.0	

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-70279-1 Analy Batch No.: 279871

SDG No.: _____

Instrument ID: VMS_Z GC Column: DB-624 (75. ID: 0.53 (mm)) Heated Purge: (Y/N) N

Calibration Start Date: 06/01/2015 19:51 Calibration End Date: 06/02/2015 01:06 Calibration ID: 22471

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6 LVL 11	LVL 2 LVL 7 LVL 12	LVL 3 LVL 8 LVL 13	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6 LVL 11	LVL 2 LVL 7 LVL 12	LVL 3 LVL 8 LVL 13	LVL 4 LVL 9	LVL 5 LVL 10
o-Xylene	CBZ	Ave	10566 166511	32132 1883621	317172	64920	936135	0.300 5.00	1.00 60.0	10.0	2.00	30.0
Styrene	CBZ	Ave	17108 265706	51200 3109131	532692	106189	1570446	0.300 5.00	1.00 60.0	10.0	2.00	30.0
Bromoform	CBZ	Ave	4957 92388	17473 1048852	188087	36246	567806	0.300 5.00	1.00 60.0	10.0	2.00	30.0
Isopropylbenzene	DCB	Ave	37324 522913	103222 5840807	1011041	205265	2865237	0.300 5.00	1.00 60.0	10.0	2.00	30.0
cis-1,4-Dichloro-2-butene	DCB	Ave	90807	16100	++++ 165805	30524	7918	30.0	5.00	++++ 60.0	10.0	2.00
Cyclohexanone	CBZ	Ave	++++ 47460	++++ 521862	101021	17210	274125	++++ 200	++++ 2400	400	80.0	1200
Bromobenzene	DCB	Ave	7783 136515	25468 1557252	267451	53842	801249	0.300 5.00	1.00 60.0	10.0	2.00	30.0
1,1,2,2-Tetrachloroethane	DCB	Ave	6069 96861	20238 1062149	192323	39924	574800	0.300 5.00	1.00 60.0	10.0	2.00	30.0
1,2,3-Trichloropropane	DCB	Ave	++++ 26364	6274 260799	49736	12464	147013	++++ 5.00	1.00 60.0	10.0	2.00	30.0
trans-1,4-Dichloro-2-butene	DCB	Ave	++++ 19979	3711 201619	36415	7887	109392	++++ 5.00	1.00 60.0	10.0	2.00	30.0
N-Propylbenzene	DCB	Ave	8730 136875	26345 1542820	267825	53549	753220	0.300 5.00	1.00 60.0	10.0	2.00	30.0
2-Chlorotoluene	DCB	Ave	++++ 113316	22830 1277479	222591	45527	642126	++++ 5.00	1.00 60.0	10.0	2.00	30.0
4-Chlorotoluene	DCB	Ave	9096 127515	24124 1535811	253136	49474	753265	0.300 5.00	1.00 60.0	10.0	2.00	30.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-70279-1 Analy Batch No.: 279871

SDG No.: _____

Instrument ID: VMS_Z GC Column: DB-624 (75. ID: 0.53 (mm)) Heated Purge: (Y/N) N

Calibration Start Date: 06/01/2015 19:51 Calibration End Date: 06/02/2015 01:06 Calibration ID: 22471

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6 LVL 11	LVL 2 LVL 7 LVL 12	LVL 3 LVL 8 LVL 13	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6 LVL 11	LVL 2 LVL 7 LVL 12	LVL 3 LVL 8 LVL 13	LVL 4 LVL 9	LVL 5 LVL 10
1,3,5-Trimethylbenzene	DCB	Ave	27358 393763	76660 4475367	774180	155283	2242628	0.300 5.00	1.00 60.0	10.0	2.00	30.0
tert-Butylbenzene	DCB	Ave	27879 443434	85598 5032958	877103	175664	2486730	0.300 5.00	1.00 60.0	10.0	2.00	30.0
1,2,4-Trimethylbenzene	DCB	Ave	28315 384529	72245 4304093	754231	149525	2179946	0.300 5.00	1.00 60.0	10.0	2.00	30.0
sec-Butylbenzene	DCB	Ave	7487 116292	22571 1296063	222760	47103	642945	0.300 5.00	1.00 60.0	10.0	2.00	30.0
1,3-Dichlorobenzene	DCB	Ave	13641 222600	41639 2660344	441243	92248	1370367	0.300 5.00	1.00 60.0	10.0	2.00	30.0
p-Isopropyltoluene	DCB	Ave	31028 500713	95322 5762578	982840	198673	2876223	0.300 5.00	1.00 60.0	10.0	2.00	30.0
1,4-Dichlorobenzene	DCB	Ave	16758 277077	51878 2960159	540500	107625	1534856	0.300 5.00	1.00 60.0	10.0	2.00	30.0
1,2,3-Trimethylbenzene	DCB	Ave	1993606	336235	73764 3842747	661131	131210	30.0	5.00	1.00 60.0	10.0	2.00
1,2-Dichlorobenzene	DCB	Ave	11490 200401	38758 2278383	393212	79210	1175525	0.300 5.00	1.00 60.0	10.0	2.00	30.0
n-Butylbenzene	DCB	Ave	27587 448380	85717 5010813	880252	177994	2511890	0.300 5.00	1.00 60.0	10.0	2.00	30.0
1,2-Dibromo-3-Chloropropane	DCB	Ave	1043 18533	4053 197926	38787	8721	112196	0.300 5.00	1.00 60.0	10.0	2.00	30.0
1,2,4-Trichlorobenzene	DCB	Ave	8969 146754	28986 1597007	296751	58156	850750	0.300 5.00	1.00 60.0	10.0	2.00	30.0
Hexachlorobutadiene	DCB	Ave	8105 141046	26654 1486515	275355	55559	747543	0.300 5.00	1.00 60.0	10.0	2.00	30.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-70279-1 Analy Batch No.: 279871

SDG No.: _____

Instrument ID: VMS_Z GC Column: DB-624 (75. ID: 0.53 (mm)) Heated Purge: (Y/N) N

Calibration Start Date: 06/01/2015 19:51 Calibration End Date: 06/02/2015 01:06 Calibration ID: 22471

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7	LVL 8	LVL 9	LVL 10	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10
			LVL 11	LVL 12	LVL 13		LVL 11	LVL 12	LVL 13			
Naphthalene	DCB	Ave	8802 141212	25249 1429879	276551	55635	797688	0.300 5.00	1.00 60.0	10.0	2.00	30.0
1,2,3-Trichlorobenzene	DCB	Ave	6651 109506	22296 1184983	224452	49265	648325	0.300 5.00	1.00 60.0	10.0	2.00	30.0
Dibromofluoromethane (Surr)	FB	Ave		220084	+++++	415996	91766		5.00	+++++	10.0	2.00
			1233540		2399574			30.0		60.0		
1,2-Dichloroethane-d4 (Surr)	FB	Ave		84524	+++++	156661	35783		5.00	+++++	10.0	2.00
			472892		875729			30.0		60.0		
Toluene-d8 (Surr)	CBZ	Ave		362915	+++++	700935	148891		5.00	+++++	10.0	2.00
			2074649		4100055			30.0		60.0		
4-Bromofluorobenzene (Surr)	DCB	Ave		196298	+++++	384120	81194		5.00	+++++	10.0	2.00
			1128051		2185461			30.0		60.0		

Curve Type Legend

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Lin2 = Linear 1/conc^2 ISTD

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8220.D
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 01-Jun-2015 19:51:30 ALS Bottle#: 2 Worklist Smp#: 9
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ic
 Operator ID: bergerb Instrument ID: VMS_Z
 Sublist: chrom-AQ_VMSZ_8260*sub112
 Method: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\AQ_VMSZ_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 02-Jun-2015 02:20:50 Calib Date: 02-Jun-2015 01:06:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8233.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK021

First Level Reviewer: bergerb

Date: 01-Jun-2015 22:53:08

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.484	3.468	0.016	94	163271	250.0	250.0	
* 2 Fluorobenzene	96	6.373	6.375	-0.002	98	905527	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.021	11.023	-0.002	85	229917	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.112	15.113	-0.001	96	352629	12.5	12.5	
27 Dichlorodifluoromethane	85	1.917	1.901	0.016	96	9444	0.3000	0.3829	
30 Chloromethane	50	1.987	1.988	-0.001	91	8175	0.3000	0.6345	
31 Butadiene	54	2.074	2.075	-0.001	59	4533	NC	NC	
32 Vinyl chloride	62	2.109	2.110	-0.001	96	8396	0.3000	0.3382	
35 Bromomethane	94	2.335	2.336	-0.001	89	8185	0.3000	0.3360	
36 Chloroethane	64	2.387	2.388	-0.001	92	5413	0.3000	0.3499	
37 Dichlorofluoromethane	67	2.544	2.545	-0.001	97	18927	0.3000	0.3215	
38 Trichlorofluoromethane	101	2.631	2.597	0.034	84	20104	0.3000	0.3711	
40 Ethyl ether	59	2.788	2.806	-0.018	86	3937	0.3000	0.3362	
44 Acrolein	56	2.944	2.910	0.034	34	1214	3.00	1.03	
45 1,1-Dichloroethene	96	3.014	3.032	-0.018	94	7357	0.3000	0.3008	
48 Acetone	43		3.050				ND	ND	
46 1,1,2-Trichloro-1,2,2-trif	151	3.083	3.084	-0.001	96	12439	0.3000	0.3315	
49 Iodomethane	142	3.188	3.189	-0.001	99	23345	0.3000	0.3518	
50 Carbon disulfide	76	3.275	3.276	-0.001	99	32885	0.3000	0.3459	
52 3-Chloro-1-propene	41	3.362	3.345	0.017	86	14325	0.3000	0.3687	
51 Methyl acetate	43	3.362	3.345	0.017	74	11011	1.50	1.96	
54 Methylene Chloride	84	3.466	3.450	0.016	96	17791	0.3000	0.8156	
55 2-Methyl-2-propanol	59	3.571	3.572	-0.001	1	1200	3.00	2.61	
58 Acrylonitrile	53	3.675	3.676	-0.001	93	5172	3.00	2.96	
57 trans-1,2-Dichloroethene	96	3.762	3.763	-0.001	93	8389	0.3000	0.3115	
56 Methyl tert-butyl ether	73		3.781				ND	ND	
59 Hexane	57	4.041	4.059	-0.018	85	15161	0.3000	0.3713	
62 1,1-Dichloroethane	63	4.197	4.198	-0.001	95	17801	0.3000	0.3541	
61 Vinyl acetate	43	4.232	4.216	0.016	93	17068	0.6000	0.6598	
67 2-Butanone (MEK)	43		4.877				ND	ND	
65 cis-1,2-Dichloroethene	96	4.859	4.877	-0.018	79	8825	0.3000	0.3333	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
66 2,2-Dichloropropane	77	4.807	4.895	-0.088	54	51366	0.3000	0.2972	
70 sec-Butyl Alcohol	45	5.120	5.104	0.016	28	4942	9.00	8.95	
71 Chlorobromomethane	128		5.173				ND	ND	
72 Tetrahydrofuran	42	5.242	5.260	-0.018	38	1109	0.6000	0.6265	
74 Chloroform	83	5.259	5.260	-0.001	91	14741	0.3000	0.3142	
75 1,1,1-Trichloroethane	97	5.555	5.539	0.016	97	13844	0.3000	0.3126	
76 Cyclohexane	56	5.642	5.643	-0.001	87	13533	0.3000	0.3218	
78 1,1-Dichloropropene	75	5.729	5.748	-0.019	92	13590	0.3000	0.3407	
77 Carbon tetrachloride	117	5.764	5.782	-0.018	93	15659	0.3000	0.3286	
80 Isobutyl alcohol	41		5.869				ND	ND	
82 1,2-Dichloroethane	62	5.990	6.009	-0.019	43	7105	0.3000	0.3605	a
81 Benzene	78	6.008	6.009	-0.001	95	21069	0.3000	0.3021	
84 n-Heptane	43	6.408	6.409	-0.001	37	15937	0.3000	0.3636	
85 Trichloroethene	95	6.913	6.896	0.017	93	10854	0.3000	0.3365	
89 2-Pentanone	43	7.139	7.140	-0.001	70	9914	1.20	1.53	
90 1,2-Dichloropropane	63	7.191	7.210	-0.019	74	10712	0.3000	0.3779	
87 Methylcyclohexane	55	7.226	7.227	-0.001	92	12979	0.3000	0.3561	
92 Dibromomethane	93	7.383	7.366	0.017	78	4765	0.3000	0.3058	
93 1,4-Dioxane	88		7.434				ND	ND	
94 Dichlorobromomethane	83	7.609	7.610	-0.001	95	10331	0.3000	0.2595	
96 2-Chloroethyl vinyl ether	63	8.079	8.063	0.016	58	3085	0.3000	0.3219	
97 cis-1,3-Dichloropropene	75	8.271	8.272	-0.001	96	11739	0.3000	0.3134	
98 4-Methyl-2-pentanone (MIBK)	43	8.532	8.533	-0.001	92	11409	1.20	1.33	
99 Toluene	91	8.810	8.811	-0.001	98	28910	0.3000	0.3657	
100 trans-1,3-Dichloropropene	75	9.141	9.125	0.016	88	8185	0.3000	0.3362	
101 Ethyl methacrylate	69	9.333	9.333	0.000	47	6978	0.3000	0.3158	
102 1,1,2-Trichloroethane	97	9.420	9.420	0.000	49	4530	0.3000	0.3048	
104 1,3-Dichloropropane	76	9.698	9.682	0.016	66	8323	0.3000	0.3102	
103 Tetrachloroethene	164	9.715	9.699	0.016	94	9571	0.3000	0.2959	
105 2-Hexanone	43	9.890	9.856	0.034	54	6231	1.20	1.07	
107 Chlorodibromomethane	129	10.046	10.065	-0.019	86	9509	0.3000	0.2870	
109 Ethylene Dibromide	107	10.255	10.239	0.016	94	7104	0.3000	0.3102	
110 1-Chlorohexane	91	11.073	11.074	-0.001	53	15430	0.3000	0.3737	
111 Chlorobenzene	112	11.073	11.074	-0.001	70	17356	0.3000	0.2846	
113 1,1,1,2-Tetrachloroethane	131	11.230	11.213	0.017	74	8908	0.3000	0.2962	
112 Ethylbenzene	106	11.265	11.283	-0.018	96	9120	0.3000	0.3125	
114 m-Xylene & p-Xylene	106	11.491	11.475	0.017	97	12485	0.3000	0.3184	
115 o-Xylene	106	12.152	12.153	-0.001	86	10566	0.3000	0.3063	
116 Styrene	104	12.170	12.171	-0.001	86	17108	0.3000	0.3032	
117 Bromoform	173	12.466	12.467	-0.001	86	4957	0.3000	0.2593	
118 Isopropylbenzene	105	12.814	12.815	-0.001	95	37324	0.3000	0.3557	
119 Cyclohexanone	55	12.971	12.937	0.034	11	1825	12.0	7.40	
121 Bromobenzene	156	13.301	13.302	-0.001	86	7783	0.3000	0.2922	
122 1,1,2,2-Tetrachloroethane	83	13.319	13.320	-0.001	65	6069	0.3000	0.3102	
124 1,2,3-Trichloropropane	110		13.372				ND	ND	
125 trans-1,4-Dichloro-2-buten	53		13.407				ND	ND	
123 N-Propylbenzene	120	13.562	13.546	0.016	97	8730	0.3000	0.3239	
126 2-Chlorotoluene	126		13.668				ND	ND	
128 4-Chlorotoluene	126	13.858	13.859	-0.001	88	9096	0.3000	0.3498	
127 1,3,5-Trimethylbenzene	105	13.893	13.877	0.016	89	27358	0.3000	0.3449	
129 tert-Butylbenzene	119	14.450	14.451	-0.001	93	27879	0.3000	0.3177	
130 1,2,4-Trimethylbenzene	105	14.537	14.538	-0.001	96	28315	0.3000	0.3656	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
131 sec-Butylbenzene	134	14.833	14.851	-0.018	93	7487	0.3000	0.3258	
132 1,3-Dichlorobenzene	146	15.007	15.008	-0.001	93	13641	0.3000	0.3039	
133 4-Isopropyltoluene	119	15.129	15.130	-0.001	50	31028	0.3000	0.3131	
134 1,4-Dichlorobenzene	146	15.164	15.165	-0.001	36	16758	0.3000	0.3133	
138 1,2-Dichlorobenzene	146	15.808	15.809	-0.001	94	11490	0.3000	0.2921	
137 n-Butylbenzene	91	15.843	15.844	-0.001	97	27587	0.3000	0.3133	
139 1,2-Dibromo-3-Chloropropan	157	16.922	16.923	-0.001	79	1043	0.3000	0.2732	
141 1,2,4-Trichlorobenzene	180	17.862	17.863	-0.001	92	8969	0.3000	0.3084	
142 Hexachlorobutadiene	225	18.071	18.072	-0.001	95	8105	0.3000	0.3012	
143 Naphthalene	128	18.106	18.089	0.017	94	8802	0.3000	0.3240	
144 1,2,3-Trichlorobenzene	180	18.349	18.350	-0.001	95	6651	0.3000	0.2984	
S 149 Trihalomethanes, Total	1				0		1.20	1.12	
S 150 Xylenes, Total (URS)	1				0		0.6000	0.6247	
S 151 Total BTEX	1				0			1.61	
S 148 1,3-Dichloropropene, Total	1				0		0.6000	0.6496	
S 145 1,2-Dichloroethene, Total	1				0		0.6000	0.6448	
S 146 Xylenes, Total	106				0		0.6000	0.6247	
S 147 1,2-Dichloroethene, Total	96				0		0.6000	0.6448	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Review Flags

a - User Assigned ID

Reagents:

MV-567649-D_00001	Amount Added: 1.00	Units: uL
MV-Main A_00023	Amount Added: 0.15	Units: uL
MV-Gas/Ket A_00033	Amount Added: 0.15	Units: uL
MV-2cleve+AVA_00010	Amount Added: 0.15	Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8220.D

Injection Date: 01-Jun-2015 19:51:30

Instrument ID: VMS_Z

Operator ID: bergerb

Lims ID: IC

Worklist Smp#: 9

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

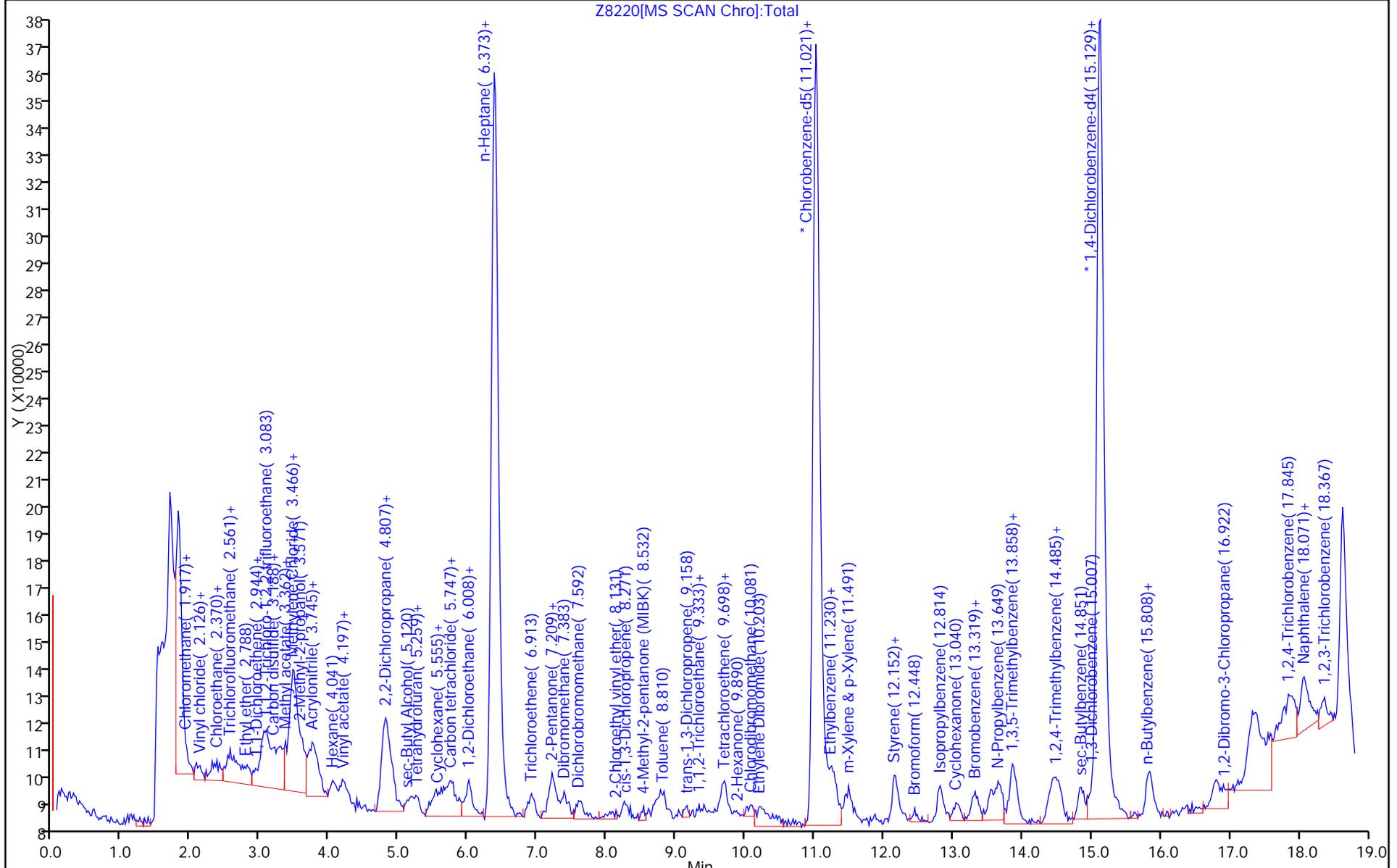
ALS Bottle#: 2

Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



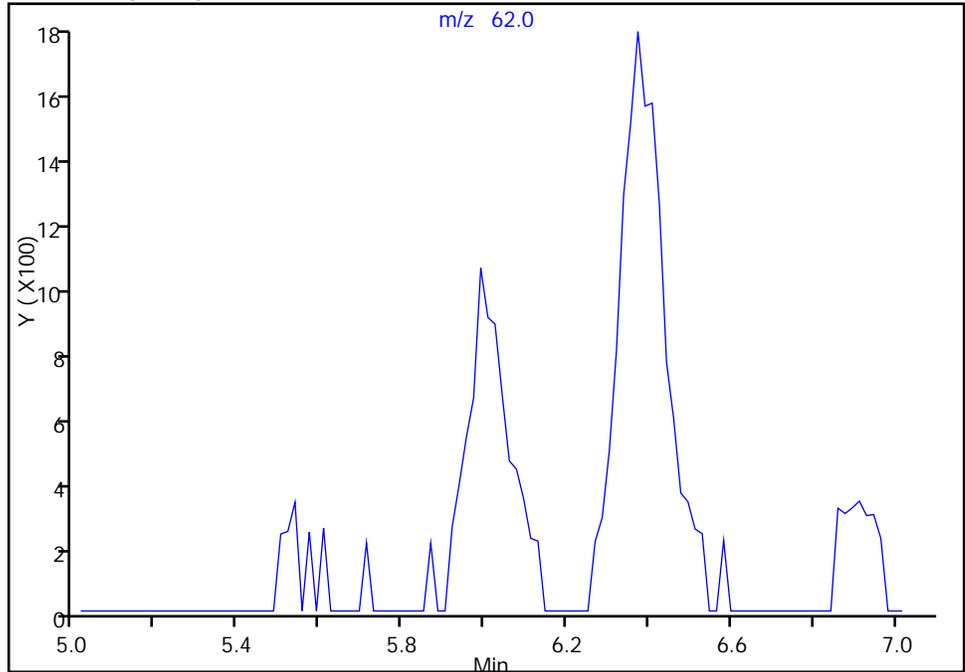
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8220.D
Injection Date: 01-Jun-2015 19:51:30 Instrument ID: VMS_Z
Lims ID: IC
Client ID:
Operator ID: bergerb ALS Bottle#: 2 Worklist Smp#: 9
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

82 1,2-Dichloroethane, CAS: 107-06-2

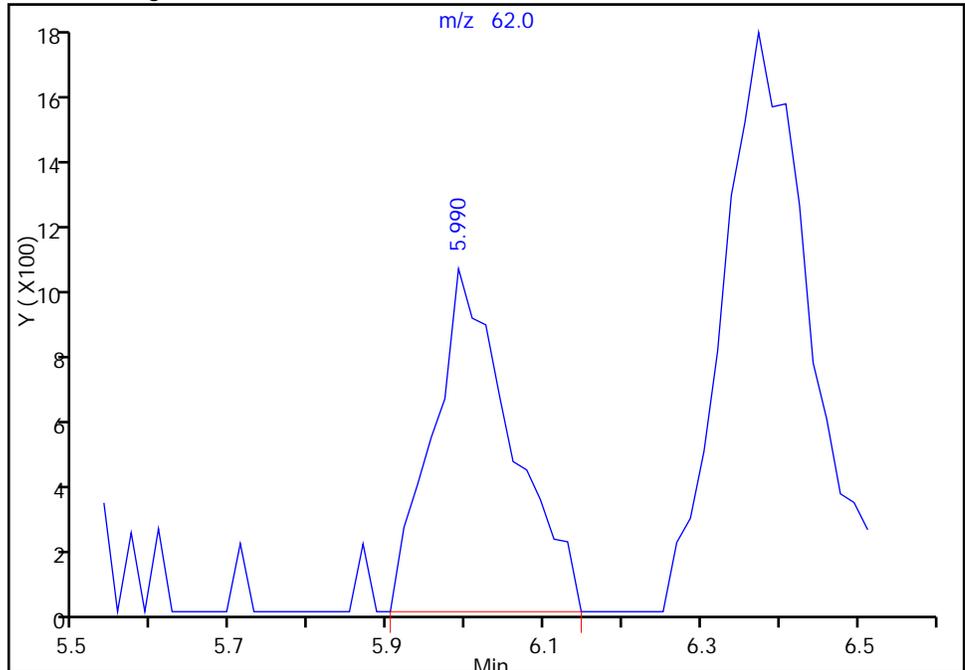
Not Detected
Expected RT: 6.01

Processing Integration Results



RT: 5.99
Area: 7105
Amount: 0.360476
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 01-Jun-2015 22:53:08
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8221.D
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 01-Jun-2015 20:14:30 ALS Bottle#: 3 Worklist Smp#: 10
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ic
 Operator ID: bergerb Instrument ID: VMS_Z
 Sublist: chrom-AQ_VMSZ_8260*sub112
 Method: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\AQ_VMSZ_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 02-Jun-2015 02:20:52 Calib Date: 02-Jun-2015 01:06:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8233.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK021

First Level Reviewer: bergerb

Date: 01-Jun-2015 23:47:05

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.479	3.468	0.011	93	156475	250.0	250.0	
* 2 Fluorobenzene	96	6.386	6.375	0.011	97	884304	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.016	11.023	-0.007	85	212856	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.124	15.113	0.011	97	345188	12.5	12.5	
27 Dichlorodifluoromethane	85	1.895	1.901	-0.006	99	22887	1.00	0.7645	
30 Chloromethane	50	1.982	1.988	-0.006	98	17520	1.00	1.02	
31 Butadiene	54	2.086	2.075	0.011	84	13543	NC	NC	
32 Vinyl chloride	62	2.104	2.110	-0.006	97	21826	1.00	0.9002	
35 Bromomethane	94	2.330	2.336	-0.006	91	20520	1.00	0.8625	
36 Chloroethane	64	2.382	2.388	-0.006	97	11803	1.00	0.7813	
37 Dichlorofluoromethane	67	2.539	2.545	-0.006	97	49573	1.00	0.8623	
38 Trichlorofluoromethane	101	2.608	2.597	0.011	99	47150	1.00	0.8913	
40 Ethyl ether	59	2.800	2.806	-0.006	89	12249	1.00	1.07	
44 Acrolein	56	2.904	2.910	-0.006	95	6885	10.0	12.3	
45 1,1-Dichloroethene	96	3.026	3.032	-0.006	97	22760	1.00	0.9529	
48 Acetone	43		3.050				ND	ND	
46 1,1,2-Trichloro-1,2,2-trif	151	3.061	3.084	-0.023	97	35917	1.00	0.9802	
49 Iodomethane	142	3.183	3.189	-0.006	100	64512	1.00	1.00	
50 Carbon disulfide	76	3.270	3.276	-0.006	98	91561	1.00	0.9862	
52 3-Chloro-1-propene	41	3.340	3.345	-0.005	86	37647	1.00	0.99	
51 Methyl acetate	43	3.340	3.345	-0.005	70	25503	5.00	4.64	
54 Methylene Chloride	84	3.461	3.450	0.011	95	30249	1.00	1.42	
55 2-Methyl-2-propanol	59	3.583	3.572	0.011	20	2623	10.0	5.94	
58 Acrylonitrile	53	3.670	3.676	-0.006	97	16436	10.0	9.63	
57 trans-1,2-Dichloroethene	96	3.757	3.763	-0.006	98	27068	1.00	1.03	
56 Methyl tert-butyl ether	73	3.775	3.781	-0.006	89	34618	1.00	0.9823	
59 Hexane	57	4.053	4.059	-0.006	86	39591	1.00	1.05	
62 1,1-Dichloroethane	63	4.193	4.198	-0.005	94	50738	1.00	1.03	
61 Vinyl acetate	43	4.210	4.216	-0.006	95	49059	2.00	1.94	
67 2-Butanone (MEK)	43	4.889	4.877	0.012	37	8322	4.00	3.05	
65 cis-1,2-Dichloroethene	96	4.871	4.877	-0.006	84	24370	1.00	0.9424	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
66 2,2-Dichloropropane	77	4.889	4.895	-0.006	65	78153	1.00	0.99	
70 sec-Butyl Alcohol	45	5.115	5.104	0.011	95	14174	30.0	26.8	
71 Chlorobromomethane	128	5.167	5.173	-0.006	96	12807	1.00	0.9636	
72 Tetrahydrofuran	42	5.254	5.260	-0.006	36	1619	2.00	0.9365	
74 Chloroform	83	5.254	5.260	-0.006	94	47280	1.00	1.03	
75 1,1,1-Trichloroethane	97	5.533	5.539	-0.006	98	42946	1.00	0.99	
76 Cyclohexane	56	5.655	5.643	0.012	90	39308	1.00	0.9572	
78 1,1-Dichloropropene	75	5.742	5.748	-0.006	98	39095	1.00	1.00	
77 Carbon tetrachloride	117	5.777	5.782	-0.005	97	46502	1.00	1.00	
80 Isobutyl alcohol	41		5.869				25.0	ND	
82 1,2-Dichloroethane	62	6.003	6.009	-0.006	55	19977	1.00	1.04	
81 Benzene	78	6.003	6.009	-0.006	96	66323	1.00	0.9738	
84 n-Heptane	43	6.386	6.409	-0.023	52	42242	1.00	0.9869	
85 Trichloroethene	95	6.908	6.896	0.012	95	30363	1.00	0.9640	
89 2-Pentanone	43	7.134	7.140	-0.006	97	20839	4.00	3.29	
90 1,2-Dichloropropane	63	7.204	7.210	-0.006	80	28719	1.00	1.04	
87 Methylcyclohexane	55	7.221	7.227	-0.006	92	31269	1.00	0.8786	
92 Dibromomethane	93	7.378	7.366	0.012	95	16365	1.00	1.08	
93 1,4-Dioxane	88		7.434				ND	ND	
94 Dichlorobromomethane	83	7.587	7.610	-0.023	98	38269	1.00	0.9843	
96 2-Chloroethyl vinyl ether	63	8.057	8.063	-0.006	87	11193	1.00	1.20	
97 cis-1,3-Dichloropropene	75	8.283	8.272	0.011	97	35599	1.00	1.03	
98 4-Methyl-2-pentanone (MIBK)	43	8.527	8.533	-0.006	94	27780	4.00	3.30	
99 Toluene	91	8.805	8.811	-0.006	99	75915	1.00	0.9834	
100 trans-1,3-Dichloropropene	75	9.136	9.125	0.011	91	23705	1.00	1.00	
101 Ethyl methacrylate	69	9.345	9.333	0.012	84	26107	1.00	1.28	
102 1,1,2-Trichloroethane	97	9.432	9.420	0.012	90	15417	1.00	1.06	
104 1,3-Dichloropropane	76	9.693	9.682	0.011	79	25874	1.00	1.04	
103 Tetrachloroethene	164	9.711	9.699	0.012	98	28527	1.00	0.9526	
105 2-Hexanone	43	9.867	9.856	0.011	91	20951	4.00	3.90	
107 Chlorodibromomethane	129	10.059	10.065	-0.006	90	29873	1.00	0.9737	
109 Ethylene Dibromide	107	10.250	10.239	0.011	98	21767	1.00	1.03	
110 1-Chlorohexane	91	11.068	11.074	-0.006	86	39203	1.00	1.03	
111 Chlorobenzene	112	11.068	11.074	-0.006	93	56248	1.00	1.00	
113 1,1,1,2-Tetrachloroethane	131	11.208	11.213	-0.005	77	28604	1.00	1.03	
112 Ethylbenzene	106	11.295	11.283	0.012	100	26465	1.00	0.9796	
114 m-Xylene & p-Xylene	106	11.486	11.475	0.012	97	34529	1.00	0.9512	
115 o-Xylene	106	12.148	12.153	-0.005	96	32132	1.00	1.01	
116 Styrene	104	12.182	12.171	0.011	94	51200	1.00	0.9802	
117 Bromoform	173	12.461	12.467	-0.006	95	17473	1.00	0.9872	
118 Isopropylbenzene	105	12.809	12.815	-0.006	96	103222	1.00	1.01	
119 Cyclohexanone	55	12.931	12.937	-0.006	53	4304	40.0	18.8	
121 Bromobenzene	156	13.296	13.302	-0.006	92	25468	1.00	0.9767	
122 1,1,2,2-Tetrachloroethane	83	13.314	13.320	-0.006	67	20238	1.00	1.06	
124 1,2,3-Trichloropropane	110	13.383	13.372	0.011	79	6274	1.00	1.19	
125 trans-1,4-Dichloro-2-buten	53	13.418	13.407	0.011	58	3711	1.00	1.01	
123 N-Propylbenzene	120	13.540	13.546	-0.006	99	26345	1.00	1.00	
126 2-Chlorotoluene	126	13.679	13.668	0.011	89	22830	1.00	1.04	
128 4-Chlorotoluene	126	13.871	13.859	0.012	97	24124	1.00	0.9476	
127 1,3,5-Trimethylbenzene	105	13.871	13.877	-0.006	95	76660	1.00	0.9873	
129 tert-Butylbenzene	119	14.445	14.451	-0.006	96	85598	1.00	1.00	
130 1,2,4-Trimethylbenzene	105	14.532	14.538	-0.006	94	72245	1.00	0.9529	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
131 sec-Butylbenzene	134	14.846	14.851	-0.005	94	22571	1.00	1.00	
132 1,3-Dichlorobenzene	146	15.002	15.008	-0.006	90	41639	1.00	0.9476	
133 4-Isopropyltoluene	119	15.124	15.130	-0.006	95	95322	1.00	0.9826	
134 1,4-Dichlorobenzene	146	15.159	15.165	-0.006	94	51878	1.00	0.99	
138 1,2-Dichlorobenzene	146	15.803	15.809	-0.006	96	38758	1.00	1.01	
137 n-Butylbenzene	91	15.838	15.844	-0.006	97	85717	1.00	0.99	
139 1,2-Dibromo-3-Chloropropan	157	16.952	16.923	0.029	91	4053	1.00	1.08	
141 1,2,4-Trichlorobenzene	180	17.874	17.863	0.011	94	28986	1.00	1.02	
142 Hexachlorobutadiene	225	18.083	18.072	0.011	97	26654	1.00	1.01	
143 Naphthalene	128	18.101	18.089	0.012	97	25249	1.00	0.9494	
144 1,2,3-Trichlorobenzene	180	18.362	18.350	0.012	93	22296	1.00	1.02	
S 149 Trihalomethanes, Total	1				0		4.00	3.98	
S 150 Xylenes, Total (URS)	1				0		2.00	1.96	
S 151 Total BTEX	1				0			4.89	
S 148 1,3-Dichloropropene, Total	1				0		2.00	2.02	
S 145 1,2-Dichloroethene, Total	1				0		2.00	1.97	
S 146 Xylenes, Total	106				0		2.00	1.96	
S 147 1,2-Dichloroethene, Total	96				0		2.00	1.97	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Reagents:

MV-567649-D_00001	Amount Added: 1.00	Units: uL
MV-Main A_00023	Amount Added: 0.50	Units: uL
MV-Gas/Ket A_00033	Amount Added: 0.50	Units: uL
MV-2cleve+AVA_00010	Amount Added: 0.50	Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8221.D

Injection Date: 01-Jun-2015 20:14:30

Instrument ID: VMS_Z

Operator ID: bergerb

Lims ID: IC

Worklist Smp#: 10

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

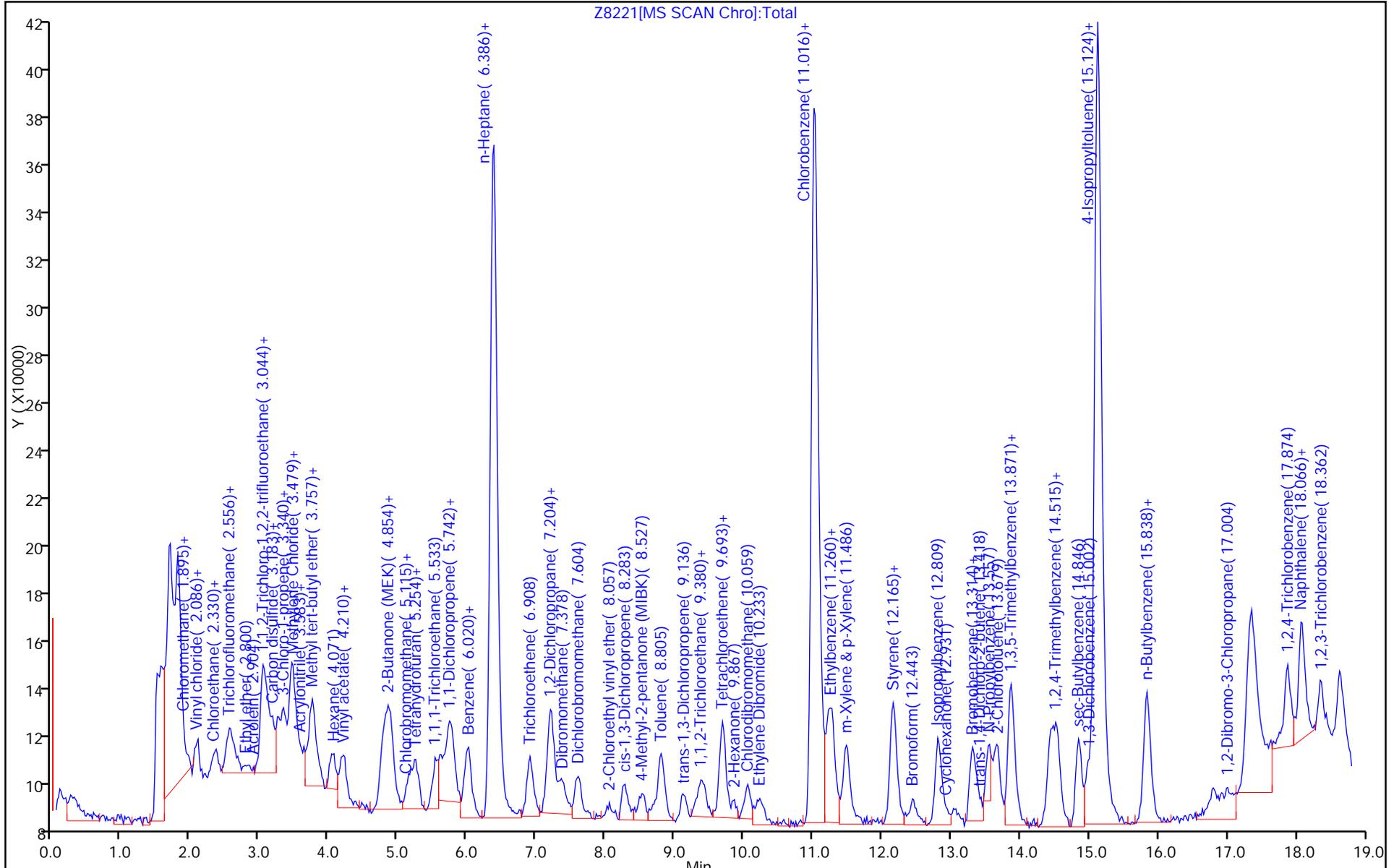
ALS Bottle#: 3

Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8222.D
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 01-Jun-2015 20:36:30 ALS Bottle#: 4 Worklist Smp#: 11
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ic
 Operator ID: bergerb Instrument ID: VMS_Z
 Sublist: chrom-AQ_VMSZ_8260*sub112
 Method: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\AQ_VMSZ_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 02-Jun-2015 02:20:54 Calib Date: 02-Jun-2015 01:06:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8233.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK021

First Level Reviewer: bergerb

Date: 01-Jun-2015 23:38:40

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.479	3.468	0.011	75	164896	250.0	250.0	
* 2 Fluorobenzene	96	6.386	6.375	0.011	97	891782	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.016	11.023	-0.007	88	216038	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.124	15.113	0.011	97	350747	12.5	12.5	
27 Dichlorodifluoromethane	85	1.912	1.901	0.011	98	50831	2.00	1.53	
30 Chloromethane	50	1.999	1.988	0.011	98	37348	2.00	1.82	M
31 Butadiene	54	2.086	2.075	0.011	87	26745	NC	NC	
32 Vinyl chloride	62	2.121	2.110	0.011	97	42172	2.00	1.72	
35 Bromomethane	94	2.347	2.336	0.011	90	40673	2.00	1.70	
36 Chloroethane	64	2.382	2.388	-0.006	98	26006	2.00	1.71	
37 Dichlorofluoromethane	67	2.556	2.545	0.011	97	98938	2.00	1.71	
38 Trichlorofluoromethane	101	2.608	2.597	0.011	99	92098	2.00	1.73	
40 Ethyl ether	59	2.800	2.806	-0.006	89	22485	2.00	1.95	
44 Acrolein	56	2.922	2.910	0.012	75	9302	20.0	17.0	
45 1,1-Dichloroethene	96	3.044	3.032	0.012	96	46473	2.00	1.93	
48 Acetone	43	3.078	3.050	0.028	52	11957	8.00	9.14	
46 1,1,2-Trichloro-1,2,2-trif	151	3.096	3.084	0.012	96	74798	2.00	2.02	
49 Iodomethane	142	3.200	3.189	0.011	99	127810	2.00	1.96	
50 Carbon disulfide	76	3.270	3.276	-0.006	100	181608	2.00	1.94	
52 3-Chloro-1-propene	41	3.357	3.345	0.012	85	73501	2.00	1.92	
51 Methyl acetate	43	3.357	3.345	0.012	74	51975	10.0	9.38	
54 Methylene Chloride	84	3.479	3.450	0.029	94	49429	2.00	2.30	
55 2-Methyl-2-propanol	59	3.583	3.572	0.011	92	10528	20.0	22.6	M
58 Acrylonitrile	53	3.670	3.676	-0.006	98	35396	20.0	20.6	
57 trans-1,2-Dichloroethene	96	3.757	3.763	-0.006	97	52351	2.00	1.97	
56 Methyl tert-butyl ether	73	3.775	3.781	-0.006	83	72009	2.00	2.03	
59 Hexane	57	4.053	4.059	-0.006	88	72815	2.00	1.90	
62 1,1-Dichloroethane	63	4.192	4.198	-0.006	96	95133	2.00	1.92	
61 Vinyl acetate	43	4.227	4.216	0.011	96	108247	4.00	4.25	
67 2-Butanone (MEK)	43	4.889	4.877	0.012	39	21743	8.00	7.89	
65 cis-1,2-Dichloroethene	96	4.871	4.877	-0.006	84	51758	2.00	1.98	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
66 2,2-Dichloropropane	77	4.906	4.895	0.011	88	124249	2.00	2.12	
70 sec-Butyl Alcohol	45	5.098	5.104	-0.006	93	35380	60.0	63.5	
71 Chlorobromomethane	128	5.167	5.173	-0.006	95	27989	2.00	2.09	
72 Tetrahydrofuran	42	5.254	5.260	-0.006	37	8015	4.00	4.60	
74 Chloroform	83	5.272	5.260	0.012	94	92122	2.00	1.99	
75 1,1,1-Trichloroethane	97	5.550	5.539	0.011	98	87320	2.00	2.00	
76 Cyclohexane	56	5.655	5.643	0.012	89	82685	2.00	2.00	
78 1,1-Dichloropropene	75	5.742	5.748	-0.006	99	79353	2.00	2.02	
77 Carbon tetrachloride	117	5.776	5.782	-0.006	96	95339	2.00	2.03	
80 Isobutyl alcohol	41	5.863	5.869	-0.006	93	11529	50.0	57.7	
82 1,2-Dichloroethane	62	6.003	6.009	-0.006	55	39471	2.00	2.03	
81 Benzene	78	6.020	6.009	0.011	96	144968	2.00	2.11	
84 n-Heptane	43	6.403	6.409	-0.006	91	83698	2.00	1.94	
85 Trichloroethene	95	6.908	6.896	0.012	97	62007	2.00	1.95	
89 2-Pentanone	43	7.169	7.140	0.029	99	54409	8.00	8.53	
90 1,2-Dichloropropane	63	7.186	7.210	-0.024	94	55717	2.00	2.00	
87 Methylcyclohexane	55	7.221	7.227	-0.006	92	72994	2.00	2.03	
92 Dibromomethane	93	7.378	7.366	0.012	95	31409	2.00	2.05	
93 1,4-Dioxane	88		7.434				NC	ND	
94 Dichlorobromomethane	83	7.604	7.610	-0.006	99	79141	2.00	2.02	
96 2-Chloroethyl vinyl ether	63	8.057	8.063	-0.006	87	19004	2.00	2.01	
97 cis-1,3-Dichloropropene	75	8.283	8.272	0.011	97	70851	2.00	2.01	
98 4-Methyl-2-pentanone (MIBK)	43	8.527	8.533	-0.006	96	63178	8.00	7.45	
99 Toluene	91	8.805	8.811	-0.006	99	149298	2.00	1.92	
100 trans-1,3-Dichloropropene	75	9.136	9.125	0.011	91	48678	2.00	2.03	
101 Ethyl methacrylate	69	9.327	9.333	-0.006	86	43727	2.00	2.11	
102 1,1,2-Trichloroethane	97	9.414	9.420	-0.006	90	28623	2.00	1.96	
104 1,3-Dichloropropane	76	9.676	9.682	-0.006	89	50022	2.00	1.98	
103 Tetrachloroethene	164	9.710	9.699	0.011	98	61763	2.00	2.03	
105 2-Hexanone	43	9.850	9.856	-0.006	96	41184	8.00	7.55	
107 Chlorodibromomethane	129	10.059	10.065	-0.006	90	62535	2.00	2.01	
109 Ethylene Dibromide	107	10.250	10.239	0.011	99	43581	2.00	2.03	
110 1-Chlorohexane	91	11.068	11.074	-0.006	87	73796	2.00	1.90	
111 Chlorobenzene	112	11.068	11.074	-0.006	93	115504	2.00	2.02	
113 1,1,1,2-Tetrachloroethane	131	11.225	11.213	0.012	95	55875	2.00	1.98	
112 Ethylbenzene	106	11.277	11.283	-0.006	99	55217	2.00	2.01	
114 m-Xylene & p-Xylene	106	11.486	11.475	0.012	98	72836	2.00	1.98	
115 o-Xylene	106	12.165	12.153	0.012	97	64920	2.00	2.00	
116 Styrene	104	12.182	12.171	0.011	94	106189	2.00	2.00	
117 Bromoform	173	12.461	12.467	-0.006	96	36246	2.00	2.02	
118 Isopropylbenzene	105	12.826	12.815	0.011	96	205265	2.00	1.97	
119 Cyclohexanone	55	12.931	12.937	-0.006	71	17210	80.0	74.2	
121 Bromobenzene	156	13.296	13.302	-0.006	92	53842	2.00	2.03	
122 1,1,2,2-Tetrachloroethane	83	13.314	13.320	-0.006	67	39924	2.00	2.05	
124 1,2,3-Trichloropropane	110	13.366	13.372	-0.006	80	12464	2.00	2.33	
125 trans-1,4-Dichloro-2-buten	53	13.401	13.407	-0.006	61	7887	2.00	2.11	
123 N-Propylbenzene	120	13.540	13.546	-0.006	99	53549	2.00	2.00	
126 2-Chlorotoluene	126	13.662	13.668	-0.006	59	45527	2.00	2.04	a
128 4-Chlorotoluene	126	13.853	13.859	-0.006	98	49474	2.00	1.91	
127 1,3,5-Trimethylbenzene	105	13.871	13.877	-0.006	94	155283	2.00	1.97	
129 tert-Butylbenzene	119	14.445	14.451	-0.006	93	175664	2.00	2.01	
130 1,2,4-Trimethylbenzene	105	14.532	14.538	-0.006	95	149525	2.00	1.94	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
131 sec-Butylbenzene	134	14.845	14.851	-0.006	94	47103	2.00	2.06	
132 1,3-Dichlorobenzene	146	15.002	15.008	-0.006	97	92248	2.00	2.07	
133 4-Isopropyltoluene	119	15.124	15.130	-0.006	95	198673	2.00	2.02	
134 1,4-Dichlorobenzene	146	15.159	15.165	-0.006	93	107625	2.00	2.02	
138 1,2-Dichlorobenzene	146	15.803	15.809	-0.006	95	79210	2.00	2.02	
137 n-Butylbenzene	91	15.855	15.844	0.011	97	177994	2.00	2.03	
139 1,2-Dibromo-3-Chloropropan	157	16.934	16.923	0.011	91	8721	2.00	2.30	
141 1,2,4-Trichlorobenzene	180	17.874	17.863	0.011	94	58156	2.00	2.01	
142 Hexachlorobutadiene	225	18.066	18.072	-0.006	98	55559	2.00	2.08	
143 Naphthalene	128	18.101	18.089	0.012	97	55635	2.00	2.06	
144 1,2,3-Trichlorobenzene	180	18.362	18.350	0.012	95	49265	2.00	2.22	
S 149 Trihalomethanes, Total	1				0		8.00	8.04	
S 150 Xylenes, Total (URS)	1				0		4.00	3.98	
S 151 Total BTEX	1				0			10.0	
S 148 1,3-Dichloropropene, Total	1				0		4.00	4.04	
S 145 1,2-Dichloroethene, Total	1				0		4.00	3.96	
S 146 Xylenes, Total	106				0		4.00	3.98	
S 147 1,2-Dichloroethene, Total	96				0		4.00	3.96	

QC Flag Legend

Processing Flags

NC - Not Calibrated

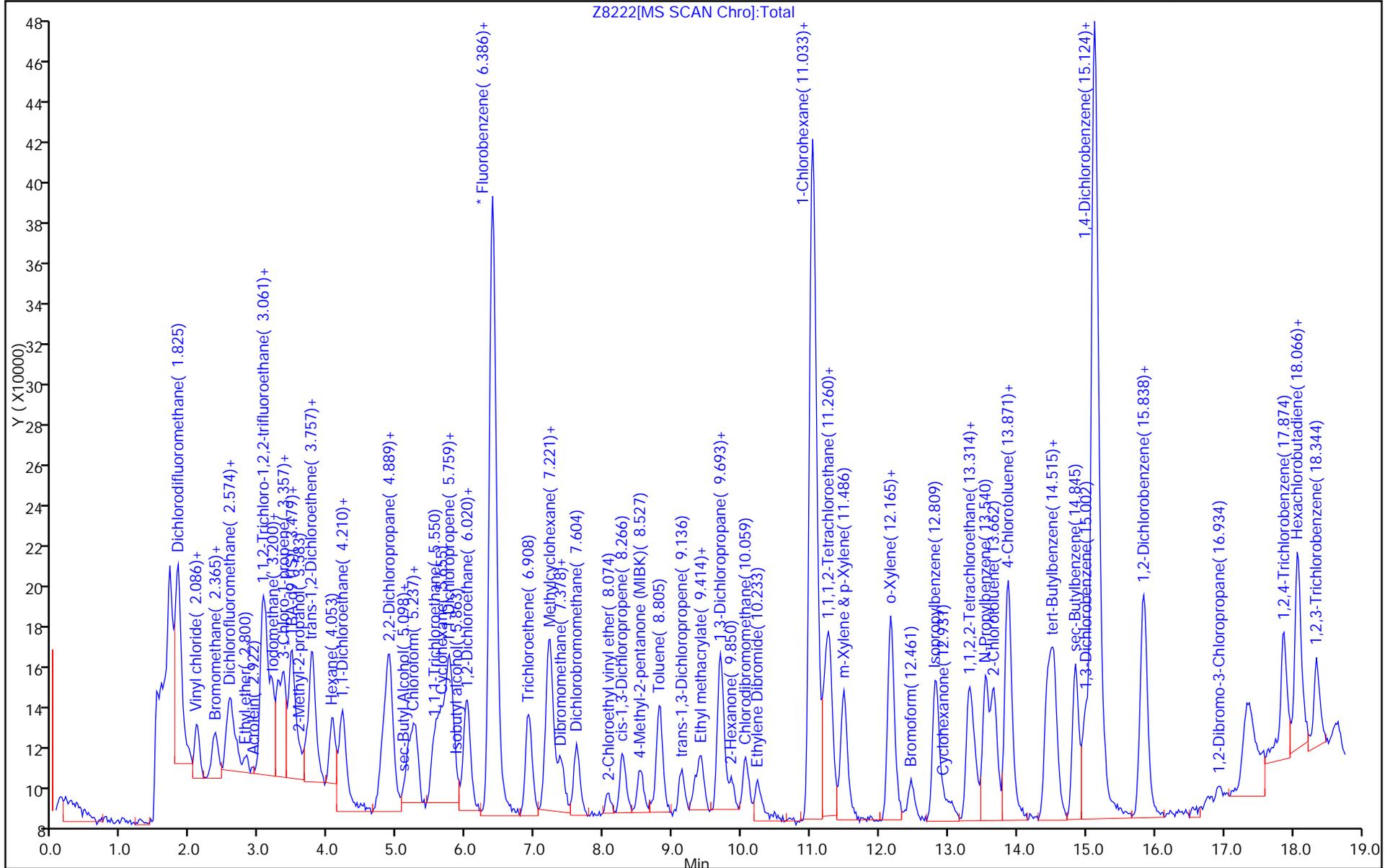
Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MV-567649-D_00001	Amount Added: 1.00	Units: uL
MV-Main A_00023	Amount Added: 1.00	Units: uL
MV-Gas/Ket A_00033	Amount Added: 1.00	Units: uL
MV-2cleve+AVA_00010	Amount Added: 1.00	Units: uL



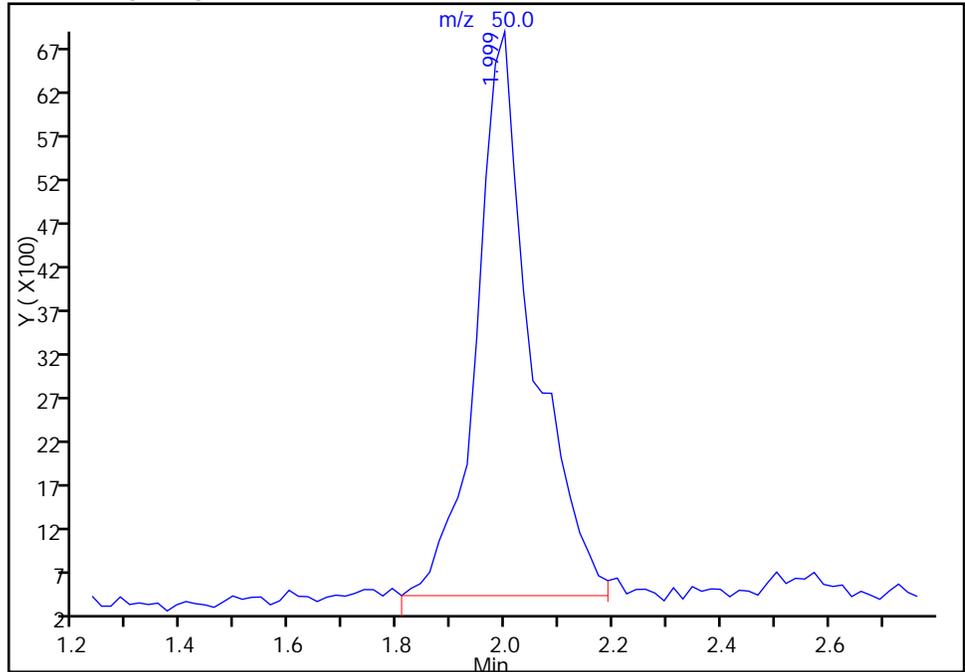
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8222.D
Injection Date: 01-Jun-2015 20:36:30 Instrument ID: VMS_Z
Lims ID: IC
Client ID:
Operator ID: bergerb ALS Bottle#: 4 Worklist Smp#: 11
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

30 Chloromethane, CAS: 74-87-3

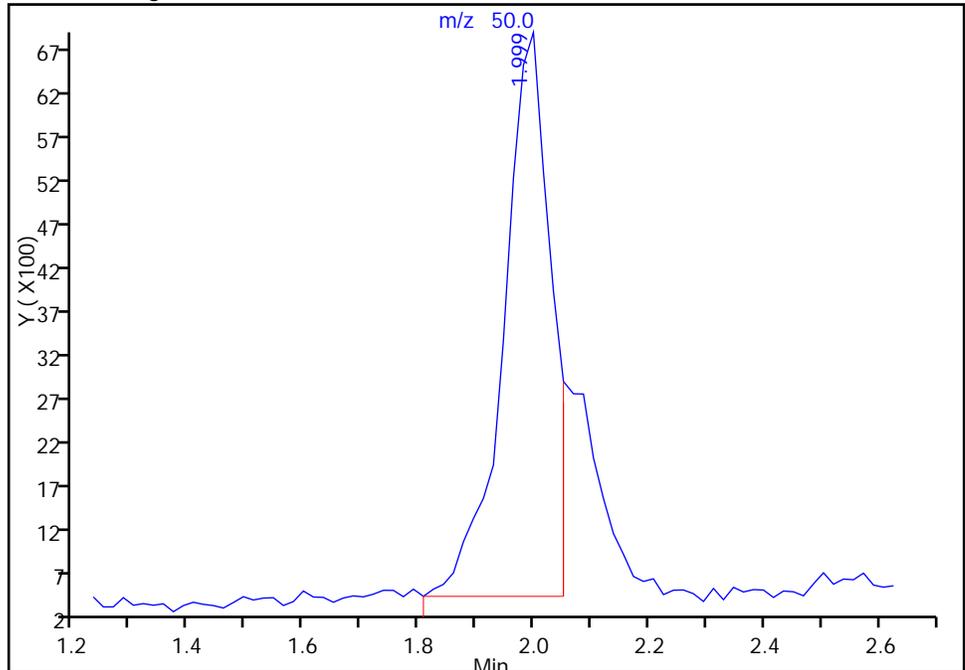
RT: 2.00
Area: 46701
Amount: 1.970874
Amount Units: ug/l

Processing Integration Results



RT: 2.00
Area: 37348
Amount: 1.818068
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 01-Jun-2015 23:38:40
Audit Action: Split an Integrated Peak
Audit Reason: Shouldering

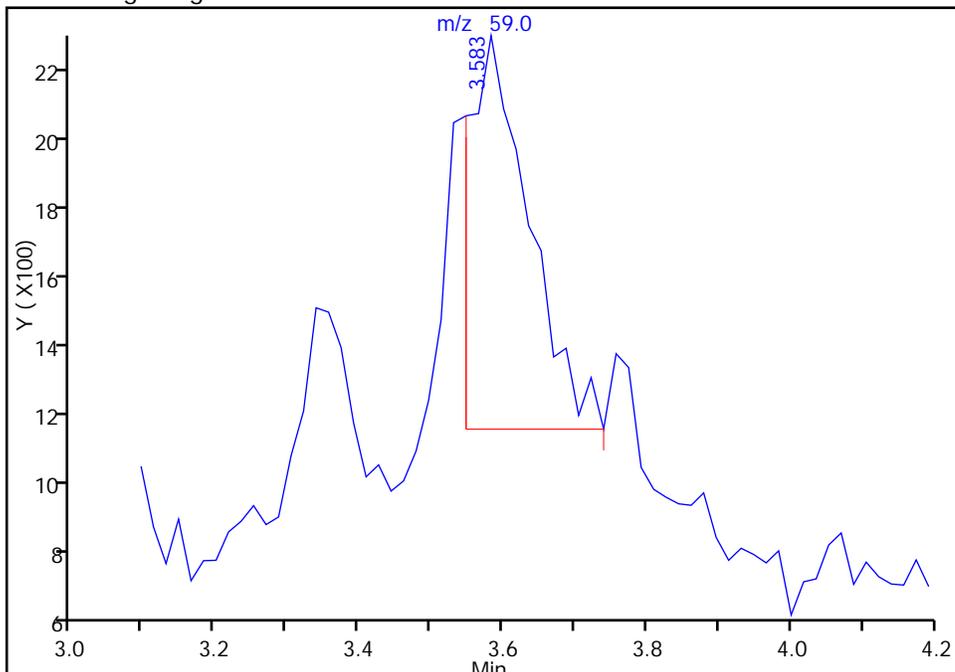
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8222.D
Injection Date: 01-Jun-2015 20:36:30 Instrument ID: VMS_Z
Lims ID: IC
Client ID:
Operator ID: bergerb ALS Bottle#: 4 Worklist Smp#: 11
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

55 2-Methyl-2-propanol, CAS: 75-65-0

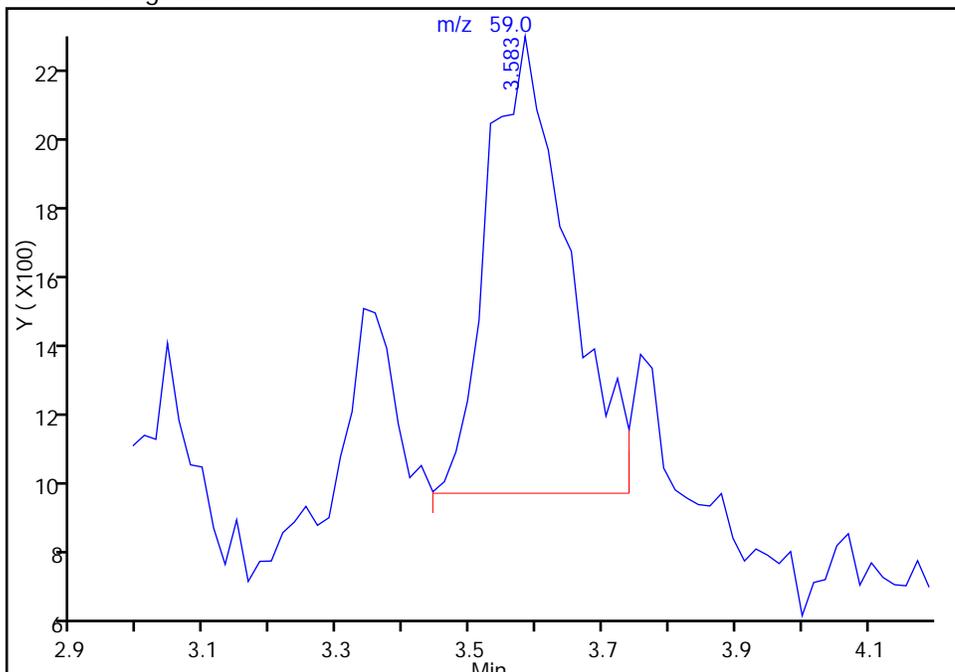
RT: 3.58
Area: 6371
Amount: 15.777300
Amount Units: ug/l

Processing Integration Results



RT: 3.58
Area: 10528
Amount: 22.641814
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 02-Jun-2015 00:01:09
Audit Action: Manually Integrated
Audit Reason: Split Peak

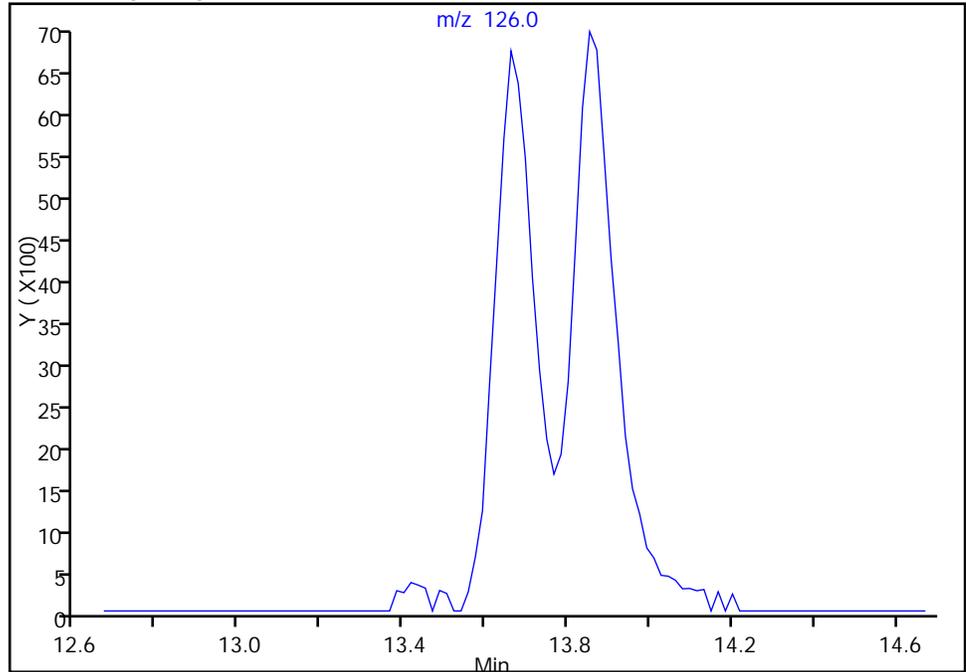
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8222.D
Injection Date: 01-Jun-2015 20:36:30 Instrument ID: VMS_Z
Lims ID: IC
Client ID:
Operator ID: bergerb ALS Bottle#: 4 Worklist Smp#: 11
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

126 2-Chlorotoluene, CAS: 95-49-8

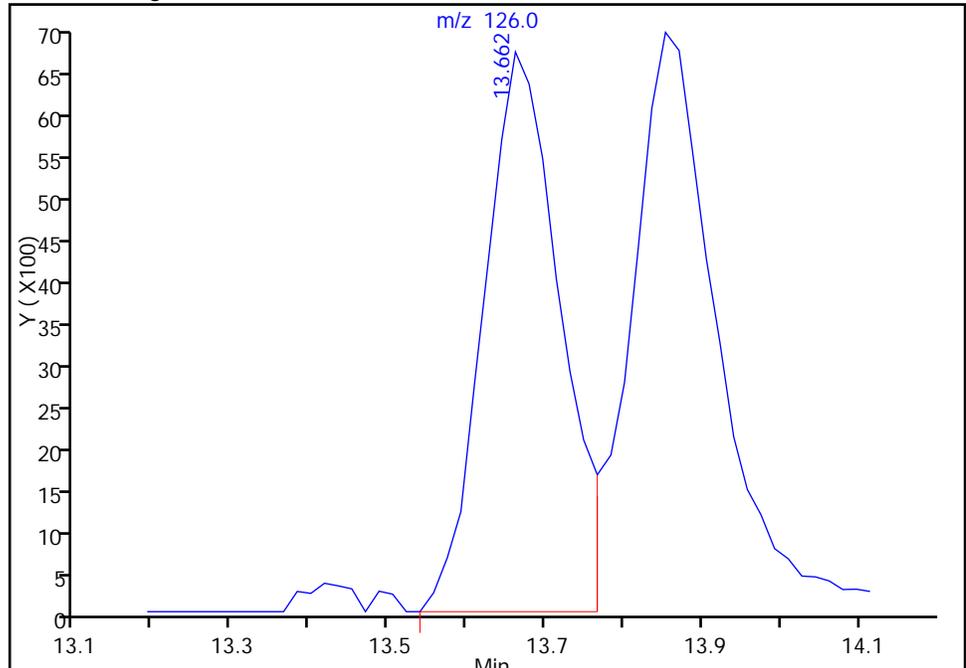
Not Detected
Expected RT: 13.67

Processing Integration Results



RT: 13.66
Area: 45527
Amount: 2.042723
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 01-Jun-2015 23:38:40
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8223.D
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 01-Jun-2015 20:59:30 ALS Bottle#: 5 Worklist Smp#: 12
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ic
 Operator ID: bergerb Instrument ID: VMS_Z
 Sublist: chrom-AQ_VMSZ_8260*sub112
 Method: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\AQ_VMSZ_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 02-Jun-2015 02:20:55 Calib Date: 02-Jun-2015 01:06:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8233.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK021

First Level Reviewer: bergerb Date: 01-Jun-2015 23:37:24

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.483	3.468	0.015	84	163138	250.0	250.0	
* 2 Fluorobenzene	96	6.373	6.375	-0.002	97	880121	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.020	11.023	-0.003	86	215691	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.111	15.113	-0.002	96	348415	12.5	12.5	
27 Dichlorodifluoromethane	85	1.917	1.901	0.016	99	197878	5.00	5.68	
30 Chloromethane	50	1.986	1.988	-0.002	99	127389	5.00	5.52	M
31 Butadiene	54	2.073	2.075	-0.002	94	83994	NC	NC	
32 Vinyl chloride	62	2.108	2.110	-0.002	98	132609	5.00	5.50	
35 Bromomethane	94	2.334	2.336	-0.002	90	129087	5.00	5.45	
36 Chloroethane	64	2.387	2.388	-0.002	98	82993	5.00	5.52	
37 Dichlorofluoromethane	67	2.543	2.545	-0.002	97	313850	5.00	5.49	
38 Trichlorofluoromethane	101	2.595	2.597	-0.002	98	283853	5.00	5.39	
40 Ethyl ether	59	2.804	2.806	-0.002	91	57495	5.00	5.05	
44 Acrolein	56	2.909	2.910	-0.001	98	23535	50.0	45.6	
45 1,1-Dichloroethene	96	3.031	3.032	-0.001	96	129531	5.00	5.45	
48 Acetone	43	3.048	3.050	-0.002	28	26192	20.0	20.3	
46 1,1,2-Trichloro-1,2,2-trif	151	3.083	3.084	-0.001	97	189260	5.00	5.19	
49 Iodomethane	142	3.187	3.189	-0.002	99	325203	5.00	5.04	
50 Carbon disulfide	76	3.274	3.276	-0.002	99	471275	5.00	5.10	
52 3-Chloro-1-propene	41	3.344	3.345	-0.001	85	192811	5.00	5.11	
51 Methyl acetate	43	3.344	3.345	-0.001	70	134921	25.0	24.7	
54 Methylene Chloride	84	3.466	3.450	0.016	95	110789	5.00	5.23	
55 2-Methyl-2-propanol	59	3.570	3.572	-0.002	91	21274	50.0	46.2	M
58 Acrylonitrile	53	3.675	3.676	-0.001	99	89636	50.0	52.8	
57 trans-1,2-Dichloroethene	96	3.762	3.763	-0.001	97	133969	5.00	5.12	
56 Methyl tert-butyl ether	73	3.779	3.781	-0.002	95	180818	5.00	5.15	
59 Hexane	57	4.058	4.059	-0.001	87	189204	5.00	4.94	
62 1,1-Dichloroethane	63	4.197	4.198	-0.001	96	242667	5.00	4.97	
61 Vinyl acetate	43	4.214	4.216	-0.002	96	241708	10.0	9.61	
67 2-Butanone (MEK)	43	4.858	4.877	-0.019	42	60602	20.0	22.3	
65 cis-1,2-Dichloroethene	96	4.876	4.877	-0.001	84	129876	5.00	5.05	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
66 2,2-Dichloropropane	77	4.893	4.895	-0.002	86	246570	5.00	5.22	
70 sec-Butyl Alcohol	45	5.102	5.104	-0.002	97	80906	150.0	146.7	
71 Chlorobromomethane	128	5.172	5.173	-0.001	94	69476	5.00	5.25	
72 Tetrahydrofuran	42	5.259	5.260	-0.001	36	16177	10.0	9.40	
74 Chloroform	83	5.259	5.260	-0.001	94	231774	5.00	5.08	
75 1,1,1-Trichloroethane	97	5.555	5.539	0.016	98	224486	5.00	5.21	
76 Cyclohexane	56	5.642	5.643	-0.001	91	213847	5.00	5.23	
78 1,1-Dichloropropene	75	5.746	5.748	-0.002	99	198074	5.00	5.11	
77 Carbon tetrachloride	117	5.781	5.782	-0.001	98	233643	5.00	5.04	
80 Isobutyl alcohol	41	5.868	5.869	-0.001	91	27555	125.0	139.4	
82 1,2-Dichloroethane	62	6.007	6.009	-0.002	90	94582	5.00	4.94	
81 Benzene	78	6.007	6.009	-0.002	96	348365	5.00	5.14	
84 n-Heptane	43	6.408	6.409	-0.001	91	215132	5.00	5.05	
85 Trichloroethene	95	6.912	6.896	0.016	98	160275	5.00	5.11	
89 2-Pentanone	43	7.139	7.140	-0.001	98	125530	20.0	19.9	
90 1,2-Dichloropropane	63	7.191	7.210	-0.019	96	135267	5.00	4.91	
87 Methylcyclohexane	55	7.226	7.227	-0.001	93	183415	5.00	5.18	
92 Dibromomethane	93	7.365	7.366	-0.001	95	76437	5.00	5.05	
93 1,4-Dioxane	88		7.434				NC	ND	
94 Dichlorobromomethane	83	7.609	7.610	-0.001	100	206622	5.00	5.34	
96 2-Chloroethyl vinyl ether	63	8.061	8.063	-0.002	92	47448	5.00	5.09	
97 cis-1,3-Dichloropropene	75	8.270	8.272	-0.002	98	175998	5.00	5.01	
98 4-Methyl-2-pentanone (MIBK)	43	8.531	8.533	-0.002	94	182208	20.0	21.8	
99 Toluene	91	8.810	8.811	-0.001	98	391559	5.00	5.10	
100 trans-1,3-Dichloropropene	75	9.123	9.125	-0.002	90	120706	5.00	5.10	
101 Ethyl methacrylate	69	9.332	9.333	-0.001	86	94326	5.00	4.55	
102 1,1,2-Trichloroethane	97	9.419	9.420	-0.001	91	73994	5.00	5.12	
104 1,3-Dichloropropane	76	9.680	9.682	-0.002	89	125949	5.00	5.00	
103 Tetrachloroethene	164	9.697	9.699	-0.002	97	157087	5.00	5.18	
105 2-Hexanone	43	9.854	9.856	-0.002	95	116347	20.0	21.4	
107 Chlorodibromomethane	129	10.046	10.065	-0.019	90	159179	5.00	5.12	
109 Ethylene Dibromide	107	10.237	10.239	-0.002	99	108773	5.00	5.06	
110 1-Chlorohexane	91	11.073	11.074	-0.001	76	191294	5.00	4.94	
111 Chlorobenzene	112	11.073	11.074	-0.001	92	292359	5.00	5.11	
113 1,1,1,2-Tetrachloroethane	131	11.212	11.213	-0.001	94	140522	5.00	4.98	
112 Ethylbenzene	106	11.281	11.283	-0.002	99	140545	5.00	5.13	
114 m-Xylene & p-Xylene	106	11.490	11.475	0.016	98	185570	5.00	5.04	
115 o-Xylene	106	12.152	12.153	-0.001	94	166511	5.00	5.14	
116 Styrene	104	12.169	12.171	-0.002	94	265706	5.00	5.02	
117 Bromoform	173	12.465	12.467	-0.002	97	92388	5.00	5.15	
118 Isopropylbenzene	105	12.813	12.815	-0.002	96	522913	5.00	5.04	
119 Cyclohexanone	55	12.935	12.937	-0.002	90	47460	200.0	205.0	
121 Bromobenzene	156	13.301	13.302	-0.001	94	136515	5.00	5.19	
122 1,1,2,2-Tetrachloroethane	83	13.318	13.320	-0.002	94	96861	5.00	5.01	
124 1,2,3-Trichloropropane	110	13.370	13.372	-0.002	80	26364	5.00	4.96	
125 trans-1,4-Dichloro-2-buten	53	13.405	13.407	-0.002	76	19979	5.00	5.39	
123 N-Propylbenzene	120	13.544	13.546	-0.002	99	136875	5.00	5.14	
126 2-Chlorotoluene	126	13.666	13.668	-0.002	77	113316	5.00	5.12	a
128 4-Chlorotoluene	126	13.858	13.859	-0.001	98	127515	5.00	4.96	
127 1,3,5-Trimethylbenzene	105	13.875	13.877	-0.002	94	393763	5.00	5.02	
129 tert-Butylbenzene	119	14.450	14.451	-0.001	94	443434	5.00	5.11	
130 1,2,4-Trimethylbenzene	105	14.537	14.538	-0.001	95	384529	5.00	5.02	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
131 sec-Butylbenzene	134	14.850	14.851	-0.001	94	116292	5.00	5.12	
132 1,3-Dichlorobenzene	146	15.007	15.008	-0.001	97	222600	5.00	5.02	
133 4-Isopropyltoluene	119	15.128	15.130	-0.002	93	500713	5.00	5.11	
134 1,4-Dichlorobenzene	146	15.163	15.165	-0.002	93	277077	5.00	5.24	
138 1,2-Dichlorobenzene	146	15.807	15.809	-0.002	95	200401	5.00	5.16	
137 n-Butylbenzene	91	15.842	15.844	-0.002	97	448380	5.00	5.15	
139 1,2-Dibromo-3-Chloropropan	157	16.939	16.923	0.016	89	18533	5.00	4.91	
141 1,2,4-Trichlorobenzene	180	17.879	17.863	0.016	95	146754	5.00	5.11	
142 Hexachlorobutadiene	225	18.070	18.072	-0.002	98	141046	5.00	5.30	
143 Naphthalene	128	18.105	18.089	0.016	97	141212	5.00	5.26	
144 1,2,3-Trichlorobenzene	180	18.349	18.350	-0.001	95	109506	5.00	4.97	
S 149 Trihalomethanes, Total	1				0		20.0	20.7	
S 150 Xylenes, Total (URS)	1				0		10.0	10.2	
S 151 Total BTEX	1				0			25.6	
S 148 1,3-Dichloropropene, Total	1				0		10.0	10.1	
S 145 1,2-Dichloroethene, Total	1				0		10.0	10.2	
S 146 Xylenes, Total	106				0		10.0	10.2	
S 147 1,2-Dichloroethene, Total	96				0		10.0	10.2	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MV-567649-D_00001	Amount Added: 1.00	Units: uL
MV-Main A_00023	Amount Added: 2.50	Units: uL
MV-Gas/Ket A_00033	Amount Added: 2.50	Units: uL
MV-2cleve+AVA_00010	Amount Added: 2.50	Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8223.D

Injection Date: 01-Jun-2015 20:59:30

Instrument ID: VMS_Z

Operator ID: bergerb

Lims ID: IC

Worklist Smp#: 12

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

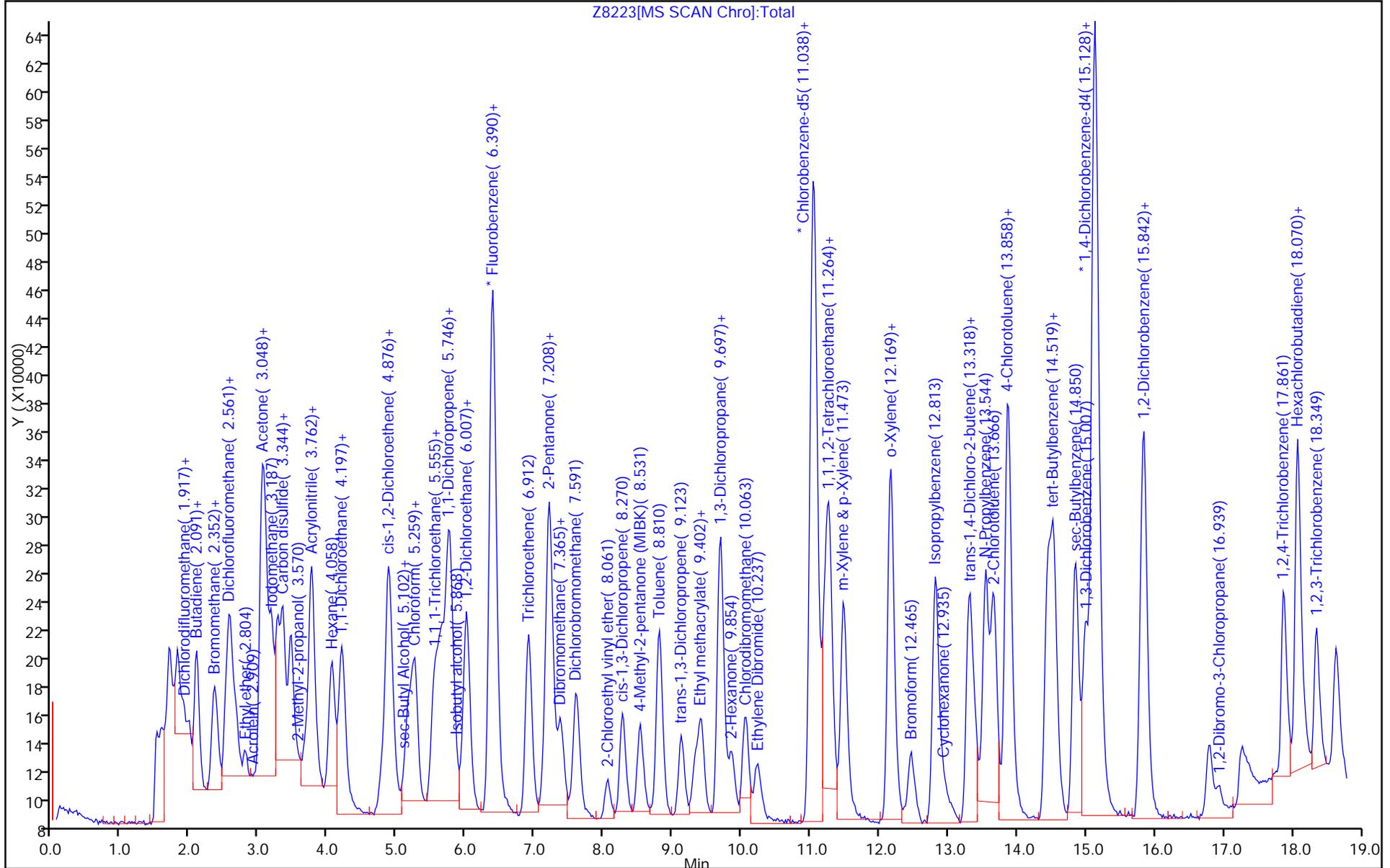
ALS Bottle#: 5

Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



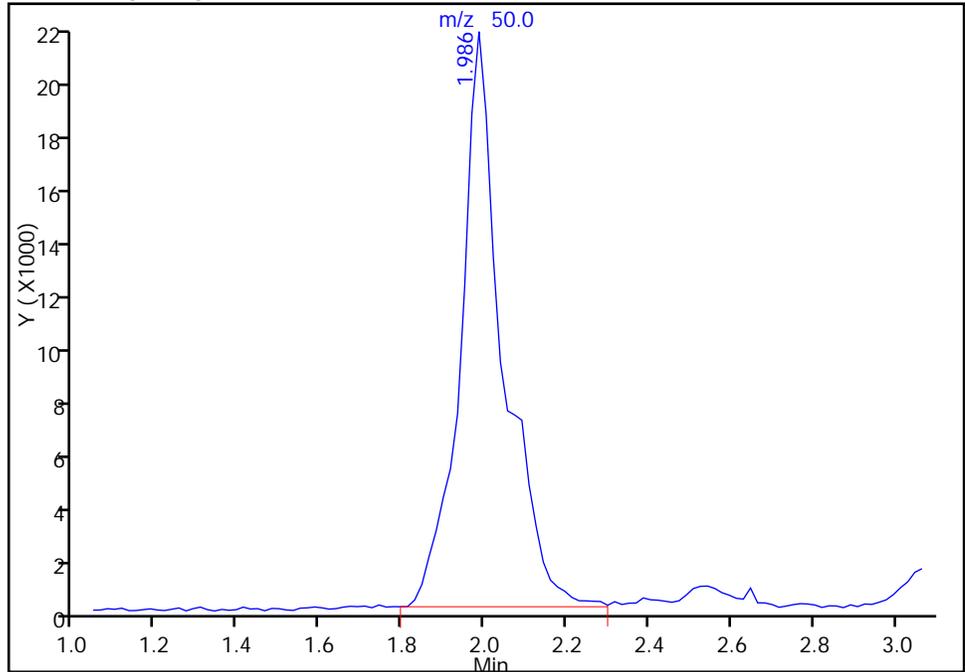
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8223.D
Injection Date: 01-Jun-2015 20:59:30 Instrument ID: VMS_Z
Lims ID: IC
Client ID:
Operator ID: bergerb ALS Bottle#: 5 Worklist Smp#: 12
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

30 Chloromethane, CAS: 74-87-3

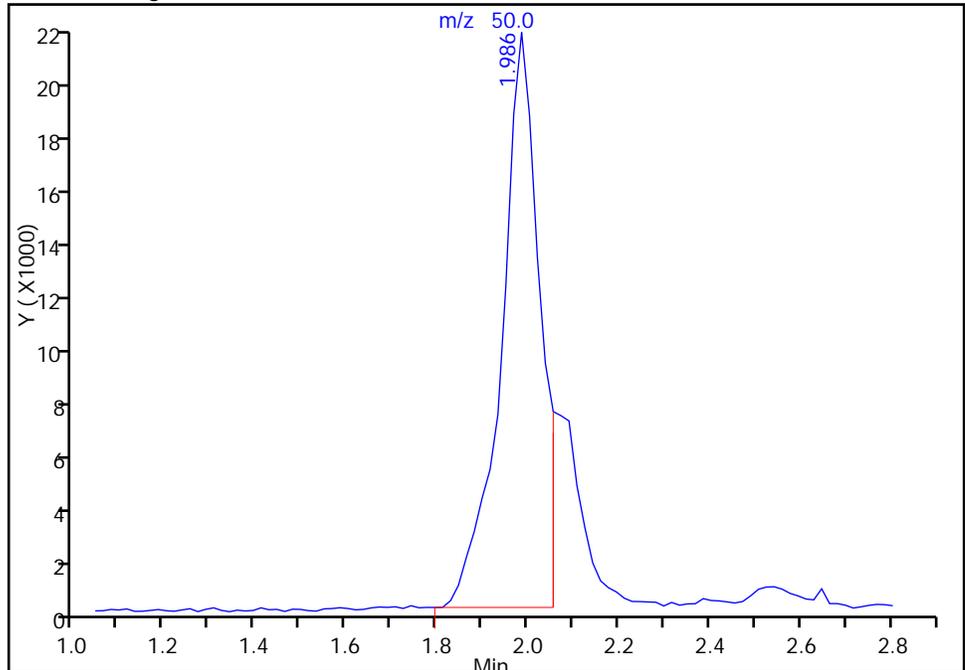
RT: 1.99
Area: 155480
Amount: 6.515398
Amount Units: ug/l

Processing Integration Results



RT: 1.99
Area: 127389
Amount: 5.523877
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 01-Jun-2015 23:37:24
Audit Action: Split an Integrated Peak
Audit Reason: Shouldering

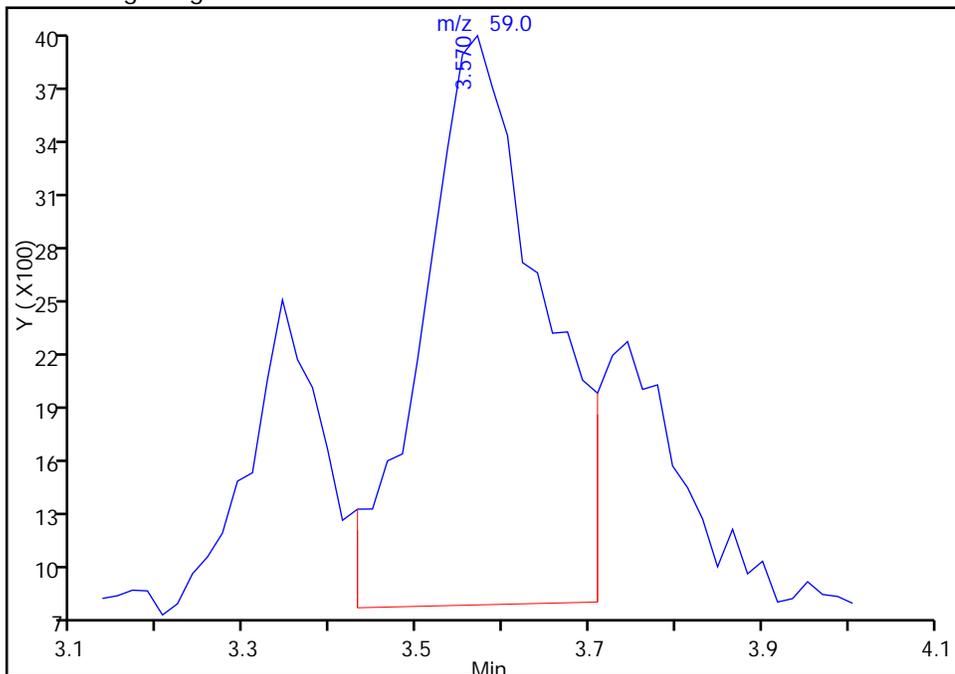
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8223.D
Injection Date: 01-Jun-2015 20:59:30 Instrument ID: VMS_Z
Lims ID: IC
Client ID:
Operator ID: bergerb ALS Bottle#: 5 Worklist Smp#: 12
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

55 2-Methyl-2-propanol, CAS: 75-65-0

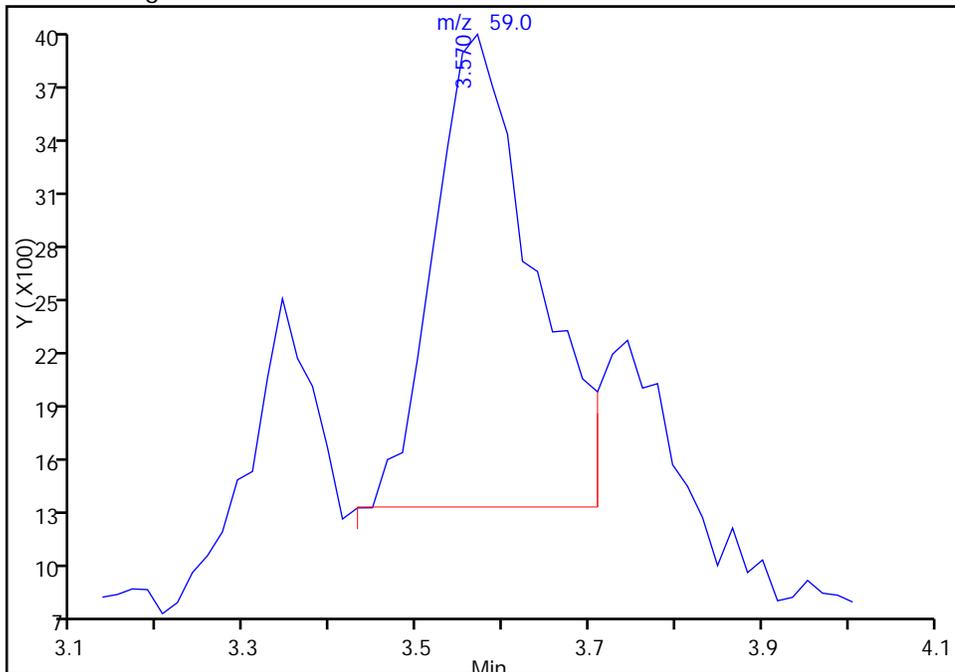
RT: 3.57
Area: 30827
Amount: 67.063899
Amount Units: ug/l

Processing Integration Results



RT: 3.57
Area: 21274
Amount: 46.245501
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 01-Jun-2015 23:37:24
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

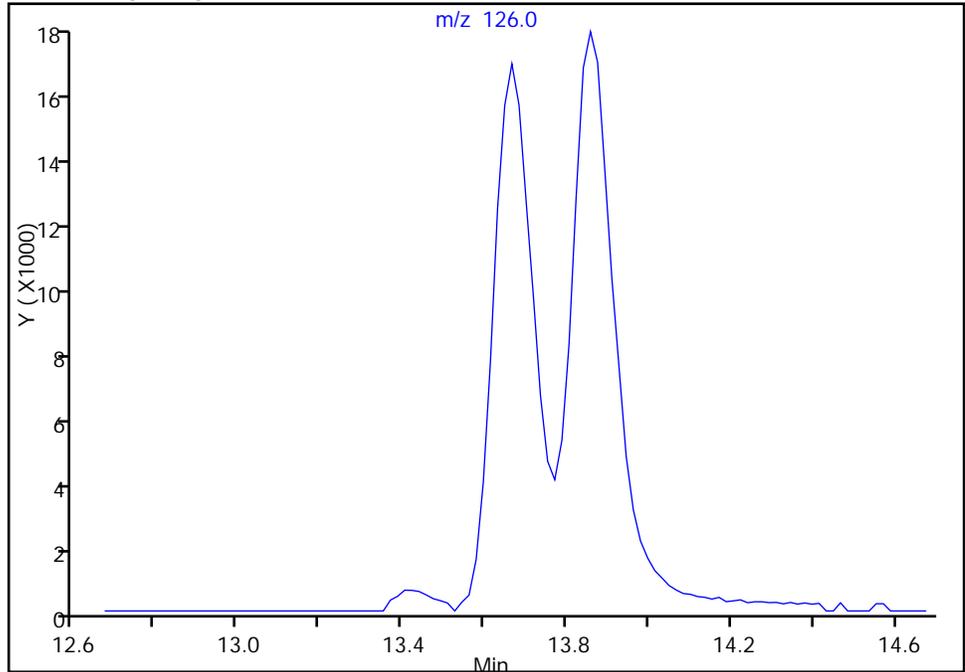
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8223.D
Injection Date: 01-Jun-2015 20:59:30 Instrument ID: VMS_Z
Lims ID: IC
Client ID:
Operator ID: bergerb ALS Bottle#: 5 Worklist Smp#: 12
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

126 2-Chlorotoluene, CAS: 95-49-8

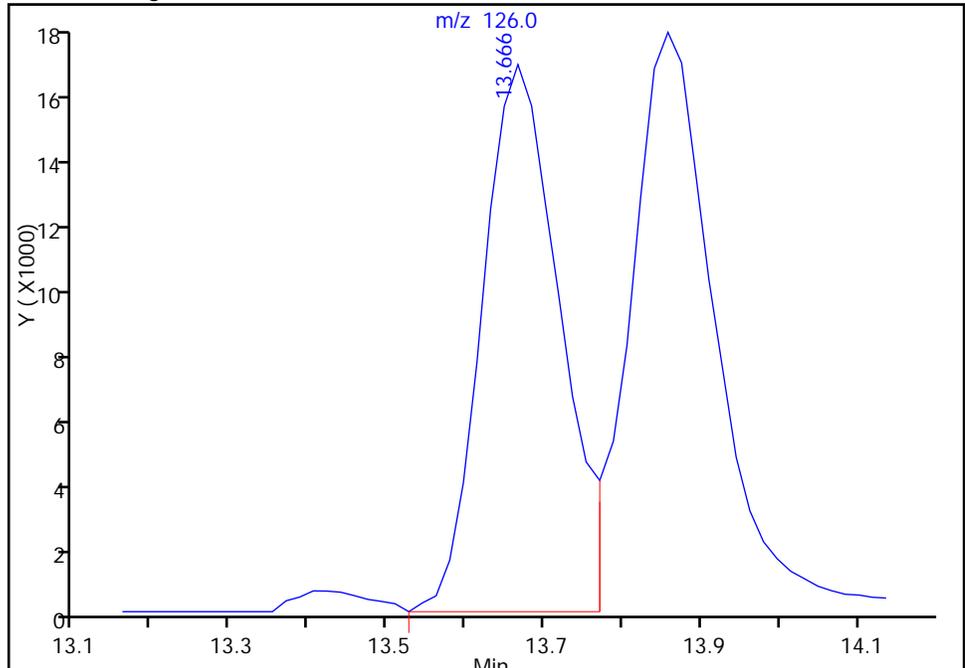
Not Detected
Expected RT: 13.67

Processing Integration Results



RT: 13.67
Area: 113316
Amount: 5.118336
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 01-Jun-2015 23:37:24
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8224.D
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 01-Jun-2015 21:22:30 ALS Bottle#: 6 Worklist Smp#: 13
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ic
 Operator ID: bergerb Instrument ID: VMS_Z
 Sublist: chrom-AQ_VMSZ_8260*sub112
 Method: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\AQ_VMSZ_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 02-Jun-2015 02:20:56 Calib Date: 02-Jun-2015 01:06:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8233.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK021

First Level Reviewer: bergerb Date: 01-Jun-2015 22:51:25

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.485	3.485	0.000	52	156379	250.0	250.0	
* 2 Fluorobenzene	96	6.374	6.374	0.000	98	887969	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.022	11.022	0.000	86	213261	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.113	15.113	0.000	95	344216	12.5	12.5	
27 Dichlorodifluoromethane	85	1.901	1.901	0.000	98	381532	10.0	10.7	
30 Chloromethane	50	1.988	1.988	0.000	98	246875	10.0	10.3	M
31 Butadiene	54	2.075	2.075	0.000	93	166354	NC	NC	
32 Vinyl chloride	62	2.110	2.110	0.000	98	253155	10.0	10.4	
35 Bromomethane	94	2.336	2.336	0.000	90	250556	10.0	10.5	
36 Chloroethane	64	2.388	2.388	0.000	98	161192	10.0	10.6	
37 Dichlorofluoromethane	67	2.545	2.545	0.000	97	614757	10.0	10.6	
38 Trichlorofluoromethane	101	2.597	2.597	0.000	99	541088	10.0	10.2	
40 Ethyl ether	59	2.806	2.806	0.000	92	111121	10.0	9.68	
44 Acrolein	56	2.910	2.910	0.000	99	51470	100.0	100.3	
45 1,1-Dichloroethene	96	3.032	3.032	0.000	97	246057	10.0	10.3	
48 Acetone	43	3.050	3.050	0.000	29	54011	40.0	41.5	
46 1,1,2-Trichloro-1,2,2-trif	151	3.084	3.084	0.000	96	367696	10.0	10.0	
49 Iodomethane	142	3.189	3.189	0.000	99	634394	10.0	9.75	
50 Carbon disulfide	76	3.276	3.276	0.000	99	926772	10.0	9.94	
52 3-Chloro-1-propene	41	3.345	3.345	0.000	86	363864	10.0	9.55	
51 Methyl acetate	43	3.345	3.345	0.000	73	272932	50.0	49.4	
54 Methylene Chloride	84	3.450	3.450	0.000	94	209096	10.0	9.77	
55 2-Methyl-2-propanol	59	3.572	3.572	0.000	91	49958	100.0	113.3	M
58 Acrylonitrile	53	3.676	3.676	0.000	99	173722	100.0	101.4	
57 trans-1,2-Dichloroethene	96	3.763	3.763	0.000	97	265792	10.0	10.1	
56 Methyl tert-butyl ether	73	3.781	3.781	0.000	95	364087	10.0	10.3	
59 Hexane	57	4.059	4.059	0.000	88	367772	10.0	9.71	
62 1,1-Dichloroethane	63	4.198	4.198	0.000	96	477644	10.0	9.69	
61 Vinyl acetate	43	4.216	4.216	0.000	96	488647	20.0	19.3	
67 2-Butanone (MEK)	43	4.877	4.877	0.000	43	124882	40.0	45.5	
65 cis-1,2-Dichloroethene	96	4.877	4.877	0.000	85	261207	10.0	10.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
66 2,2-Dichloropropane	77	4.895	4.895	0.000	89	443305	10.0	10.0	
70 sec-Butyl Alcohol	45	5.104	5.104	0.000	95	173414	300.0	328.0	
71 Chlorobromomethane	128	5.173	5.173	0.000	95	133280	10.0	9.99	
72 Tetrahydrofuran	42	5.260	5.260	0.000	36	33811	20.0	19.5	
74 Chloroform	83	5.260	5.260	0.000	94	457054	10.0	9.93	
75 1,1,1-Trichloroethane	97	5.539	5.539	0.000	99	439495	10.0	10.1	
76 Cyclohexane	56	5.643	5.643	0.000	87	424175	10.0	10.3	
78 1,1-Dichloropropene	75	5.748	5.748	0.000	99	387308	10.0	9.90	
77 Carbon tetrachloride	117	5.782	5.782	0.000	97	464090	10.0	9.93	
80 Isobutyl alcohol	41	5.869	5.869	0.000	94	46336	250.0	244.5	
82 1,2-Dichloroethane	62	6.009	6.009	0.000	94	185869	10.0	9.62	
81 Benzene	78	6.009	6.009	0.000	96	683703	10.0	10.0	
84 n-Heptane	43	6.409	6.409	0.000	89	426415	10.0	9.92	
85 Trichloroethene	95	6.896	6.896	0.000	98	320597	10.0	10.1	
89 2-Pentanone	43	7.140	7.140	0.000	99	250206	40.0	39.4	
90 1,2-Dichloropropane	63	7.210	7.210	0.000	97	259897	10.0	9.35	
87 Methylcyclohexane	55	7.227	7.227	0.000	93	359785	10.0	10.1	
92 Dibromomethane	93	7.366	7.366	0.000	95	151836	10.0	9.94	
93 1,4-Dioxane	88		7.434				NC	ND	
94 Dichlorobromomethane	83	7.610	7.610	0.000	99	404225	10.0	10.4	
96 2-Chloroethyl vinyl ether	63	8.063	8.063	0.000	91	88240	10.0	9.39	
97 cis-1,3-Dichloropropene	75	8.272	8.272	0.000	98	345041	10.0	9.93	
98 4-Methyl-2-pentanone (MIBK)	43	8.533	8.533	0.000	95	364127	40.0	43.1	
99 Toluene	91	8.811	8.811	0.000	98	754816	10.0	9.74	
100 trans-1,3-Dichloropropene	75	9.125	9.125	0.000	91	233476	10.0	9.78	
101 Ethyl methacrylate	69	9.333	9.333	0.000	86	196034	10.0	9.56	
102 1,1,2-Trichloroethane	97	9.420	9.420	0.000	90	146252	10.0	10.0	
104 1,3-Dichloropropane	76	9.682	9.682	0.000	89	251323	10.0	10.1	
103 Tetrachloroethene	164	9.699	9.699	0.000	98	308552	10.0	10.3	
105 2-Hexanone	43	9.856	9.856	0.000	95	235648	40.0	43.8	
107 Chlorodibromomethane	129	10.065	10.065	0.000	90	315643	10.0	10.3	
109 Ethylene Dibromide	107	10.239	10.239	0.000	98	210640	10.0	9.92	
110 1-Chlorohexane	91	11.074	11.074	0.000	93	366142	10.0	9.56	
111 Chlorobenzene	112	11.074	11.074	0.000	95	570409	10.0	10.1	
113 1,1,1,2-Tetrachloroethane	131	11.213	11.213	0.000	97	279409	10.0	10.0	
112 Ethylbenzene	106	11.283	11.283	0.000	98	273851	10.0	10.1	
114 m-Xylene & p-Xylene	106	11.475	11.475	0.000	98	364421	10.0	10.0	
115 o-Xylene	106	12.153	12.153	0.000	97	317172	10.0	9.91	
116 Styrene	104	12.171	12.171	0.000	94	532692	10.0	10.2	
117 Bromoform	173	12.467	12.467	0.000	97	188087	10.0	10.6	
118 Isopropylbenzene	105	12.815	12.815	0.000	96	1011041	10.0	9.87	
119 Cyclohexanone	55	12.937	12.937	0.000	86	101021	400.0	441.3	
121 Bromobenzene	156	13.302	13.302	0.000	94	267451	10.0	10.3	
122 1,1,2,2-Tetrachloroethane	83	13.320	13.320	0.000	94	192323	10.0	10.1	
124 1,2,3-Trichloropropane	110	13.372	13.372	0.000	81	49736	10.0	9.46	
125 trans-1,4-Dichloro-2-buten	53	13.407	13.407	0.000	67	36415	10.0	9.95	
123 N-Propylbenzene	120	13.546	13.546	0.000	99	267825	10.0	10.2	
126 2-Chlorotoluene	126	13.668	13.668	0.000	79	222591	10.0	10.2	a
128 4-Chlorotoluene	126	13.859	13.859	0.000	98	253136	10.0	9.97	
127 1,3,5-Trimethylbenzene	105	13.877	13.877	0.000	95	774180	10.0	10.0	
129 tert-Butylbenzene	119	14.451	14.451	0.000	94	877103	10.0	10.2	
130 1,2,4-Trimethylbenzene	105	14.538	14.538	0.000	96	754231	10.0	9.98	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
131 sec-Butylbenzene	134	14.851	14.851	0.000	94	222760	10.0	9.93	
132 1,3-Dichlorobenzene	146	15.008	15.008	0.000	96	441243	10.0	10.1	
133 4-Isopropyltoluene	119	15.130	15.130	0.000	97	982840	10.0	10.2	
134 1,4-Dichlorobenzene	146	15.165	15.165	0.000	94	540500	10.0	10.4	
138 1,2-Dichlorobenzene	146	15.809	15.809	0.000	96	393212	10.0	10.2	
137 n-Butylbenzene	91	15.844	15.844	0.000	97	880252	10.0	10.2	
139 1,2-Dibromo-3-Chloropropan	157	16.923	16.923	0.000	90	38787	10.0	10.4	
141 1,2,4-Trichlorobenzene	180	17.863	17.863	0.000	94	296751	10.0	10.5	
142 Hexachlorobutadiene	225	18.072	18.072	0.000	98	275355	10.0	10.5	
143 Naphthalene	128	18.089	18.089	0.000	97	276551	10.0	10.4	
144 1,2,3-Trichlorobenzene	180	18.350	18.350	0.000	96	224452	10.0	10.3	
S 149 Trihalomethanes, Total	1				0		40.0	41.2	
S 150 Xylenes, Total (URS)	1				0		20.0	19.9	
S 148 1,3-Dichloropropene, Total	1				0		20.0	19.7	
S 145 1,2-Dichloroethene, Total	1				0		20.0	20.1	
S 146 Xylenes, Total	106				0		20.0	19.9	
S 147 1,2-Dichloroethene, Total	96				0		20.0	20.1	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MV-567649-D_00001	Amount Added: 1.00	Units: uL
MV-Main A_00023	Amount Added: 5.00	Units: uL
MV-Gas/Ket A_00033	Amount Added: 5.00	Units: uL
MV-2cleve+AVA_00010	Amount Added: 5.00	Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8224.D

Injection Date: 01-Jun-2015 21:22:30

Instrument ID: VMS_Z

Operator ID: bergerb

Lims ID: IC

Worklist Smp#: 13

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

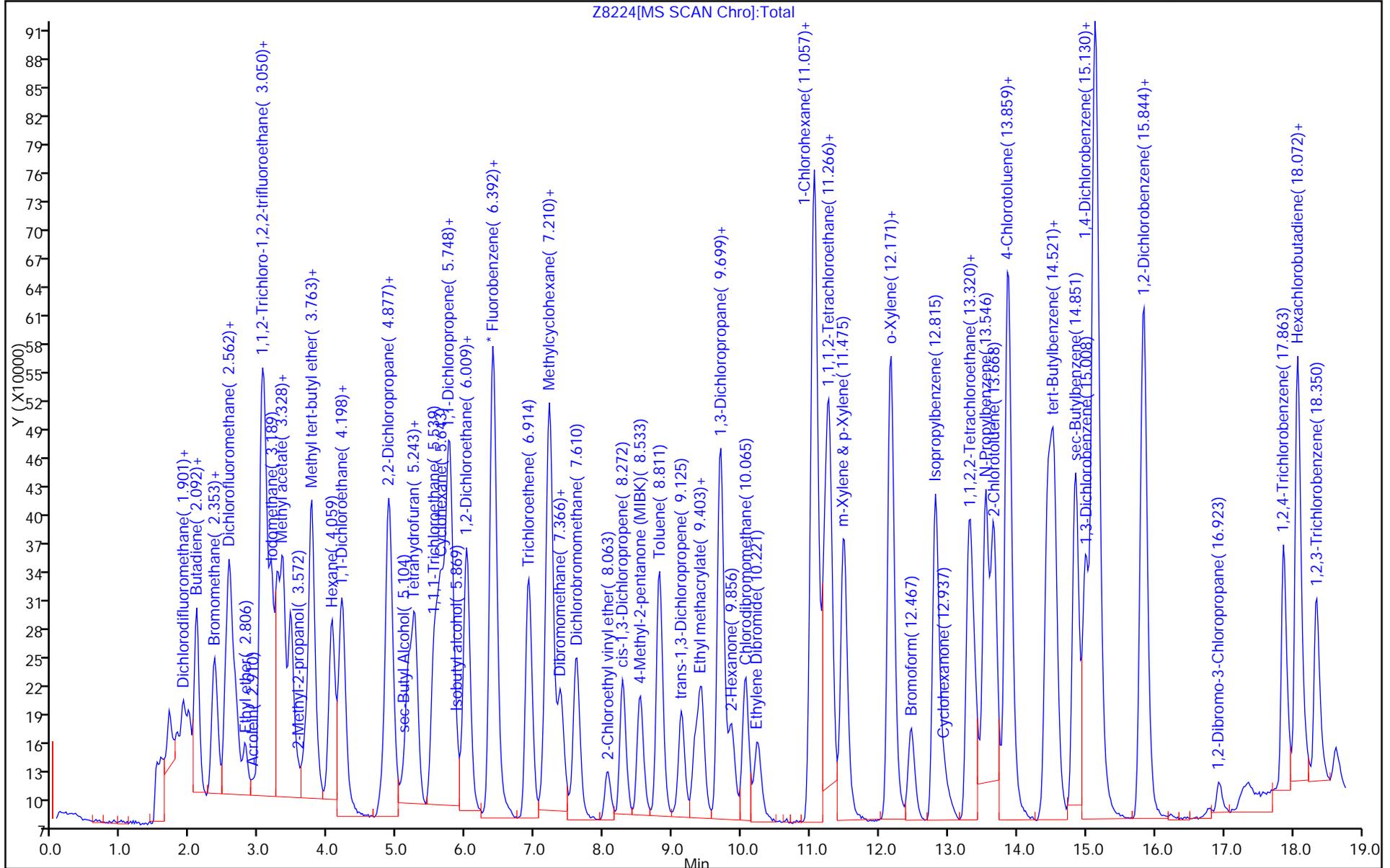
ALS Bottle#: 6

Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



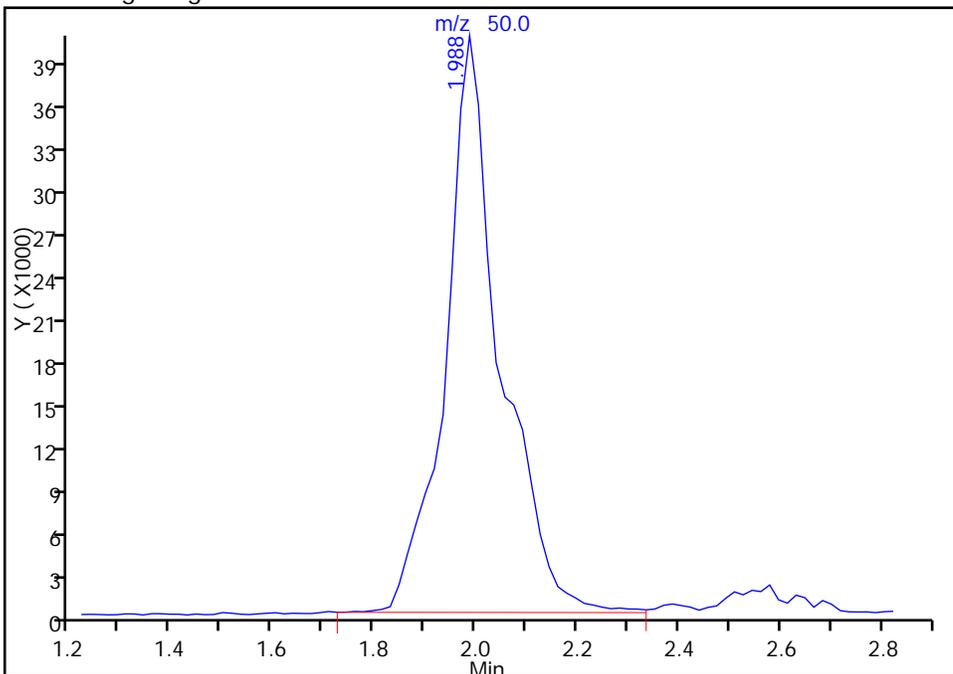
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8224.D
Injection Date: 01-Jun-2015 21:22:30 Instrument ID: VMS_Z
Lims ID: IC
Client ID:
Operator ID: bergerb ALS Bottle#: 6 Worklist Smp#: 13
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

30 Chloromethane, CAS: 74-87-3

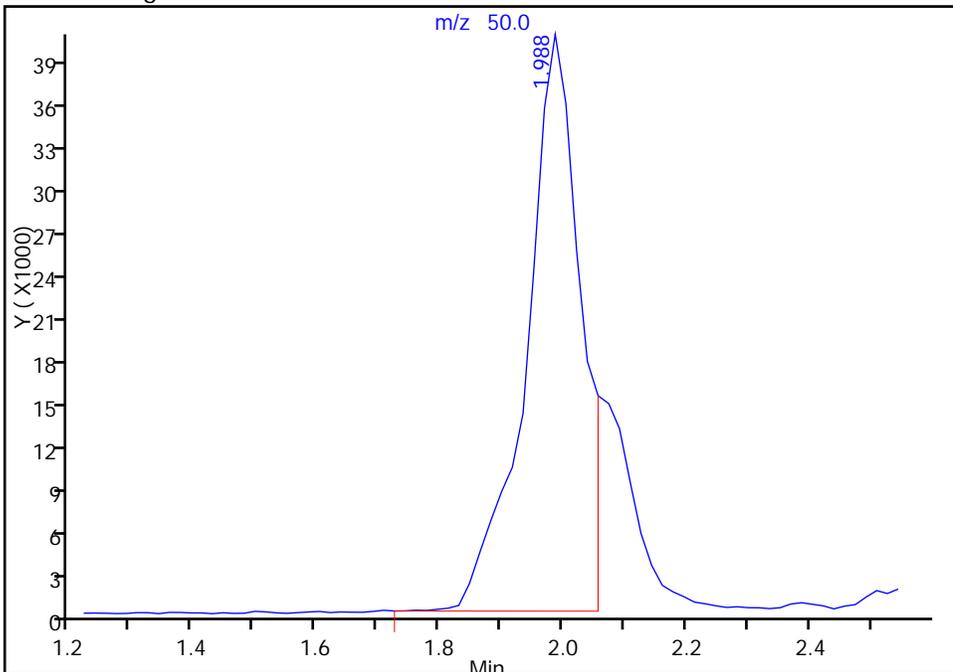
RT: 1.99
Area: 300773
Amount: 10.492215
Amount Units: ug/l

Processing Integration Results



RT: 1.99
Area: 246875
Amount: 10.325704
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 01-Jun-2015 22:51:25
Audit Action: Split an Integrated Peak
Audit Reason: Shouldering

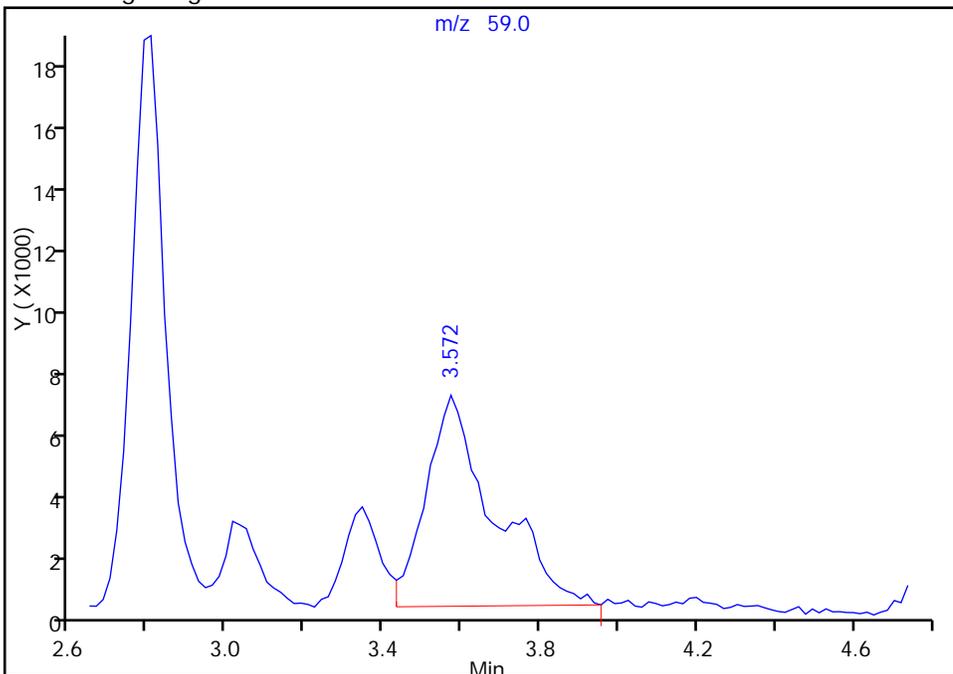
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8224.D
Injection Date: 01-Jun-2015 21:22:30 Instrument ID: VMS_Z
Lims ID: IC
Client ID:
Operator ID: bergerb ALS Bottle#: 6 Worklist Smp#: 13
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

55 2-Methyl-2-propanol, CAS: 75-65-0

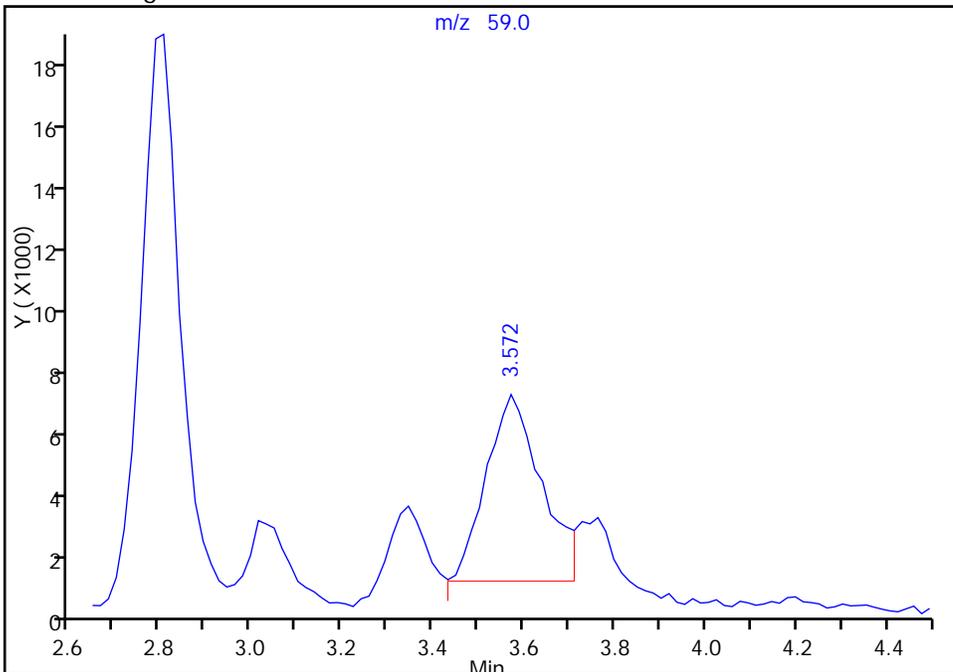
RT: 3.57
Area: 79838
Amount: 113.2355
Amount Units: ug/l

Processing Integration Results



RT: 3.57
Area: 49958
Amount: 113.2927
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 01-Jun-2015 22:51:25
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

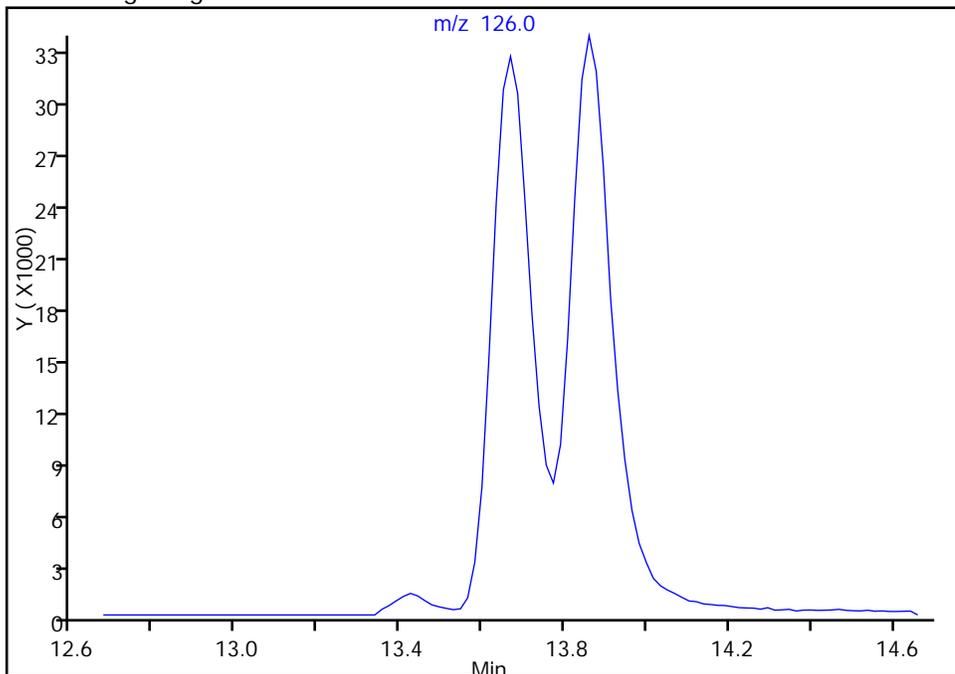
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8224.D
Injection Date: 01-Jun-2015 21:22:30 Instrument ID: VMS_Z
Lims ID: IC
Client ID:
Operator ID: bergerb ALS Bottle#: 6 Worklist Smp#: 13
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

126 2-Chlorotoluene, CAS: 95-49-8

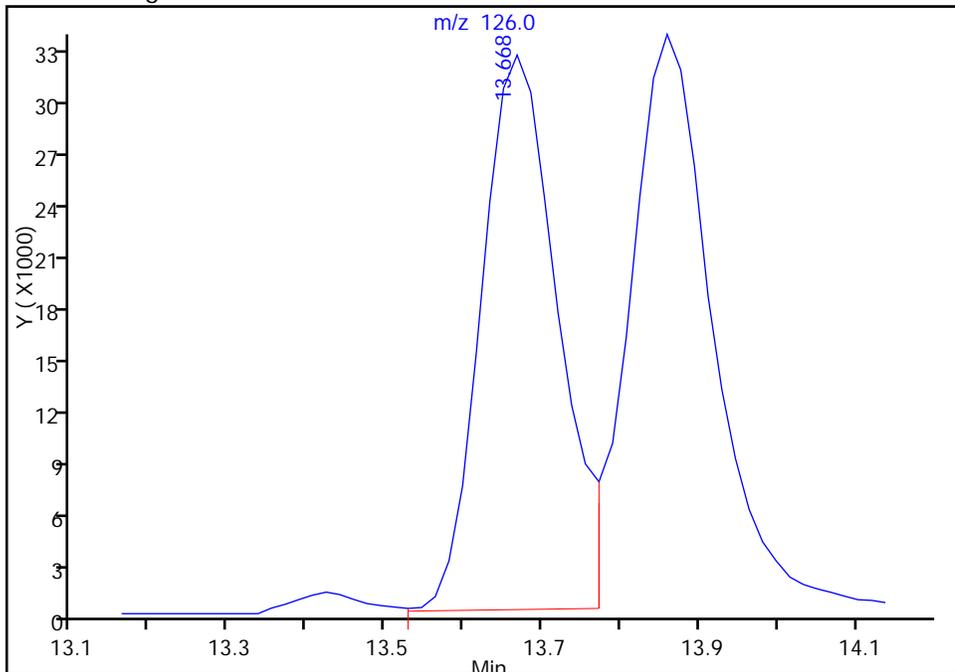
Not Detected
Expected RT: 13.67

Processing Integration Results



RT: 13.67
Area: 222591
Amount: 10.176793
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 01-Jun-2015 22:51:25
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8225.D
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 01-Jun-2015 21:45:30 ALS Bottle#: 7 Worklist Smp#: 14
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ic
 Operator ID: bergerb Instrument ID: VMS_Z
 Sublist: chrom-AQ_VMSZ_8260*sub112
 Method: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\AQ_VMSZ_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 02-Jun-2015 02:20:58 Calib Date: 02-Jun-2015 01:06:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8233.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK021

First Level Reviewer: bergerb

Date: 01-Jun-2015 23:35:15

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.499	3.485	0.014	51	167623	250.0	250.0	
* 2 Fluorobenzene	96	6.388	6.374	0.014	98	905736	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.018	11.022	-0.004	88	212255	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.127	15.113	0.013	66	357511	12.5	12.5	
27 Dichlorodifluoromethane	85	1.915	1.901	0.014	98	1087743	30.0	29.8	
30 Chloromethane	50	2.002	1.988	0.014	99	720036	30.0	29.0	M
31 Butadiene	54	2.089	2.075	0.014	92	491260	NC	NC	
32 Vinyl chloride	62	2.124	2.110	0.014	98	732895	30.0	29.5	
35 Bromomethane	94	2.350	2.336	0.014	90	749242	30.0	30.7	
36 Chloroethane	64	2.402	2.388	0.014	99	475419	30.0	30.7	
37 Dichlorofluoromethane	67	2.559	2.545	0.014	98	1817595	30.0	30.9	
38 Trichlorofluoromethane	101	2.611	2.597	0.014	99	1561289	30.0	28.8	
40 Ethyl ether	59	2.802	2.806	-0.004	93	338088	30.0	28.9	
44 Acrolein	56	2.907	2.910	-0.003	99	154157	300.0	297.1	
45 1,1-Dichloroethene	96	3.029	3.032	-0.003	97	710092	30.0	29.0	
48 Acetone	43	3.046	3.050	-0.004	96	145587	120.0	109.5	
46 1,1,2-Trichloro-1,2,2-trif	151	3.098	3.084	0.014	96	1031781	30.0	27.5	
49 Iodomethane	142	3.185	3.189	-0.004	99	1853234	30.0	27.9	
50 Carbon disulfide	76	3.272	3.276	-0.004	99	2637848	30.0	27.7	
52 3-Chloro-1-propene	41	3.342	3.345	-0.003	86	1067023	30.0	27.5	
51 Methyl acetate	43	3.359	3.345	0.014	74	815378	150.0	144.8	
54 Methylene Chloride	84	3.464	3.450	0.014	94	604694	30.0	27.7	
55 2-Methyl-2-propanol	59	3.568	3.572	-0.004	95	130197	300.0	275.5	M
58 Acrylonitrile	53	3.690	3.676	0.014	99	526274	300.0	301.1	
57 trans-1,2-Dichloroethene	96	3.760	3.763	-0.003	97	765281	30.0	28.4	
56 Methyl tert-butyl ether	73	3.777	3.781	-0.004	94	1095099	30.0	30.3	
59 Hexane	57	4.056	4.059	-0.003	89	999614	30.0	26.5	
62 1,1-Dichloroethane	63	4.195	4.198	-0.003	96	1403771	30.0	27.9	
61 Vinyl acetate	43	4.230	4.216	0.014	96	1561638	60.0	60.4	
67 2-Butanone (MEK)	43	4.874	4.877	-0.003	68	351302	120.0	125.5	
65 cis-1,2-Dichloroethene	96	4.874	4.877	-0.003	84	772304	30.0	29.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
66 2,2-Dichloropropane	77	4.909	4.895	0.014	86	1216038	30.0	28.6	
70 sec-Butyl Alcohol	45	5.100	5.104	-0.004	95	506782	900.0	894.2	
71 Chlorobromomethane	128	5.170	5.173	-0.003	94	402650	30.0	29.6	
72 Tetrahydrofuran	42	5.274	5.260	0.014	37	107029	60.0	60.4	
74 Chloroform	83	5.257	5.260	-0.003	94	1349308	30.0	28.8	
75 1,1,1-Trichloroethane	97	5.553	5.539	0.014	99	1257070	30.0	28.4	
76 Cyclohexane	56	5.657	5.643	0.014	88	1180756	30.0	28.1	
78 1,1-Dichloropropene	75	5.744	5.748	-0.004	99	1085118	30.0	27.2	
77 Carbon tetrachloride	117	5.779	5.782	-0.003	97	1330700	30.0	27.9	
80 Isobutyl alcohol	41	5.866	5.869	-0.003	95	133187	750.0	655.7	
82 1,2-Dichloroethane	62	6.005	6.009	-0.004	92	547065	30.0	27.7	
81 Benzene	78	6.023	6.009	0.014	96	1997983	30.0	28.6	
84 n-Heptane	43	6.406	6.409	-0.003	89	1170961	30.0	26.7	
85 Trichloroethene	95	6.910	6.896	0.014	98	914229	30.0	28.3	
89 2-Pentanone	43	7.137	7.140	-0.003	99	759169	120.0	117.1	
90 1,2-Dichloropropane	63	7.206	7.210	-0.004	96	767521	30.0	27.1	
87 Methylcyclohexane	55	7.224	7.227	-0.003	93	1015567	30.0	27.9	
92 Dibromomethane	93	7.380	7.366	0.014	95	457492	30.0	29.4	
93 1,4-Dioxane	88		7.434				NC	ND	
94 Dichlorobromomethane	83	7.607	7.610	-0.003	100	1230228	30.0	30.9	
96 2-Chloroethyl vinyl ether	63	8.059	8.063	-0.004	91	260802	30.0	27.2	
97 cis-1,3-Dichloropropene	75	8.268	8.272	-0.004	98	1028276	30.0	29.7	
98 4-Methyl-2-pentanone (MIBK)	43	8.529	8.533	-0.004	95	1076765	120.0	125.0	
99 Toluene	91	8.808	8.811	-0.003	99	2181915	30.0	27.6	
100 trans-1,3-Dichloropropene	75	9.121	9.125	-0.004	91	704478	30.0	28.9	
101 Ethyl methacrylate	69	9.330	9.333	-0.003	86	566751	30.0	27.8	
102 1,1,2-Trichloroethane	97	9.417	9.420	-0.003	90	439746	30.0	29.6	
104 1,3-Dichloropropane	76	9.678	9.682	-0.004	93	742478	30.0	30.0	
103 Tetrachloroethene	164	9.696	9.699	-0.003	98	883027	30.0	29.6	
105 2-Hexanone	43	9.852	9.856	-0.004	95	689287	120.0	128.6	
107 Chlorodibromomethane	129	10.061	10.065	-0.004	90	945178	30.0	30.9	
109 Ethylene Dibromide	107	10.235	10.239	-0.004	99	634624	30.0	30.0	
110 1-Chlorohexane	91	11.071	11.074	-0.003	89	1034395	30.0	27.1	
111 Chlorobenzene	112	11.071	11.074	-0.003	95	1716742	30.0	30.5	
113 1,1,1,2-Tetrachloroethane	131	11.210	11.213	-0.003	98	845841	30.0	30.5	
112 Ethylbenzene	106	11.280	11.283	-0.003	98	780116	30.0	29.0	
114 m-Xylene & p-Xylene	106	11.488	11.475	0.014	98	1082709	30.0	29.9	
115 o-Xylene	106	12.150	12.153	-0.003	97	936135	30.0	29.4	
116 Styrene	104	12.185	12.171	0.014	94	1570446	30.0	30.1	
117 Bromoform	173	12.463	12.467	-0.004	97	567806	30.0	32.2	
118 Isopropylbenzene	105	12.811	12.815	-0.004	96	2865237	30.0	26.9	
119 Cyclohexanone	55	12.951	12.937	0.014	89	274125	1200.0	1203.3	
121 Bromobenzene	156	13.299	13.302	-0.003	94	801249	30.0	29.7	
122 1,1,2,2-Tetrachloroethane	83	13.316	13.320	-0.004	94	574800	30.0	29.0	
124 1,2,3-Trichloropropane	110	13.368	13.372	-0.004	83	147013	30.0	26.9	
125 trans-1,4-Dichloro-2-buten	53	13.421	13.407	0.014	70	109392	30.0	28.8	
123 N-Propylbenzene	120	13.542	13.546	-0.004	98	753220	30.0	27.6	
126 2-Chlorotoluene	126	13.664	13.668	-0.004	87	642126	30.0	28.3	a
128 4-Chlorotoluene	126	13.856	13.859	-0.003	99	753265	30.0	28.6	
127 1,3,5-Trimethylbenzene	105	13.873	13.877	-0.004	96	2242628	30.0	27.9	
129 tert-Butylbenzene	119	14.448	14.451	-0.003	93	2486730	30.0	28.0	
130 1,2,4-Trimethylbenzene	105	14.535	14.538	-0.003	96	2179946	30.0	27.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
131 sec-Butylbenzene	134	14.848	14.851	-0.003	95	642945	30.0	27.6	
132 1,3-Dichlorobenzene	146	15.005	15.008	-0.003	97	1370367	30.0	30.1	
133 4-Isopropyltoluene	119	15.127	15.130	-0.004	97	2876223	30.0	28.6	
134 1,4-Dichlorobenzene	146	15.161	15.165	-0.004	94	1534856	30.0	28.3	
138 1,2-Dichlorobenzene	146	15.805	15.809	-0.004	96	1175525	30.0	29.5	
137 n-Butylbenzene	91	15.840	15.844	-0.004	97	2511890	30.0	28.1	
139 1,2-Dibromo-3-Chloropropan	157	16.937	16.923	0.014	91	112196	30.0	29.0	
141 1,2,4-Trichlorobenzene	180	17.859	17.863	-0.004	94	850750	30.0	28.9	
142 Hexachlorobutadiene	225	18.068	18.072	-0.004	98	747543	30.0	27.4	
143 Naphthalene	128	18.103	18.089	0.014	97	797688	30.0	29.0	
144 1,2,3-Trichlorobenzene	180	18.347	18.350	-0.003	95	648325	30.0	28.7	
S 149 Trihalomethanes, Total	1				0		120.0	122.7	
S 150 Xylenes, Total (URS)	1				0		60.0	59.3	
S 151 Total BTEX	1				0			144.5	
S 148 1,3-Dichloropropene, Total	1				0		60.0	58.7	
S 145 1,2-Dichloroethene, Total	1				0		60.0	57.6	
S 146 Xylenes, Total	106				0		60.0	59.3	
S 147 1,2-Dichloroethene, Total	96				0		60.0	57.6	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MV-567649-D_00001	Amount Added: 1.00	Units: uL
MV-Main A_00023	Amount Added: 15.00	Units: uL
MV-Gas/Ket A_00033	Amount Added: 15.00	Units: uL
MV-2cleve+AVA_00010	Amount Added: 15.00	Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8225.D

Injection Date: 01-Jun-2015 21:45:30

Instrument ID: VMS_Z

Operator ID: bergerb

Lims ID: IC

Worklist Smp#: 14

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

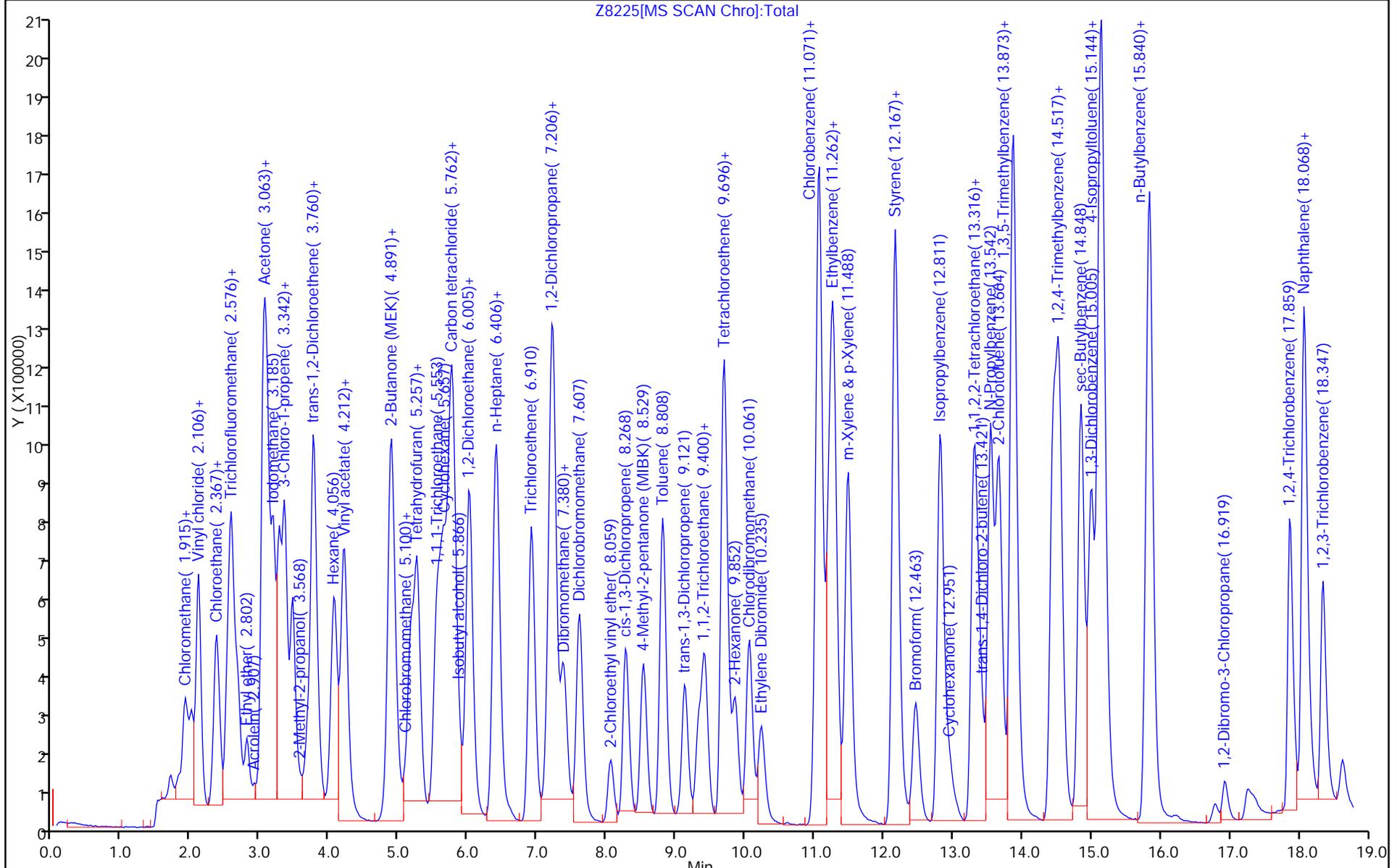
ALS Bottle#: 7

Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



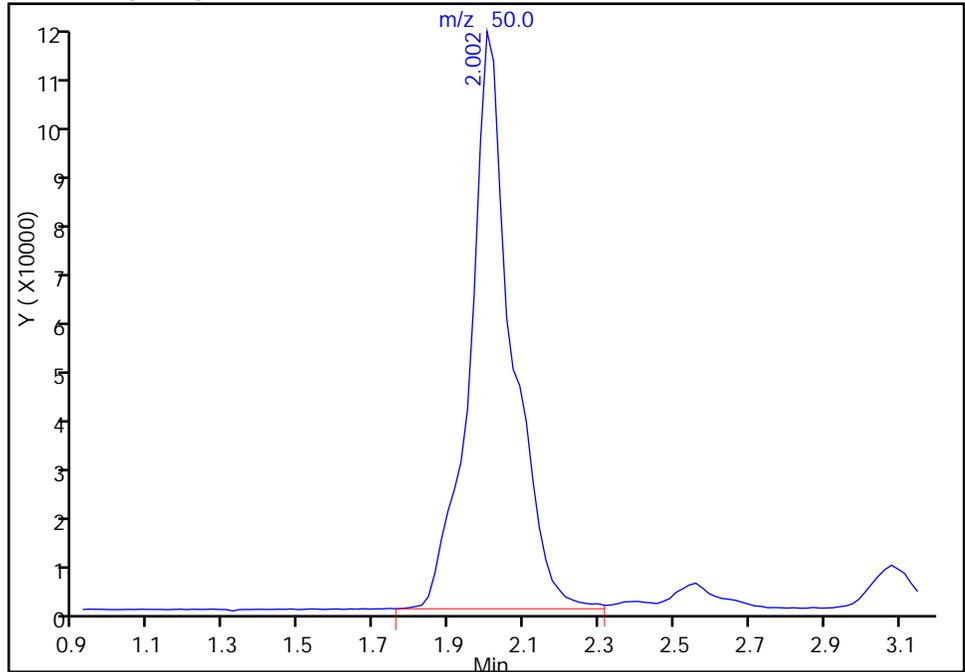
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8225.D
Injection Date: 01-Jun-2015 21:45:30 Instrument ID: VMS_Z
Lims ID: IC
Client ID:
Operator ID: bergerb ALS Bottle#: 7 Worklist Smp#: 14
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

30 Chloromethane, CAS: 74-87-3

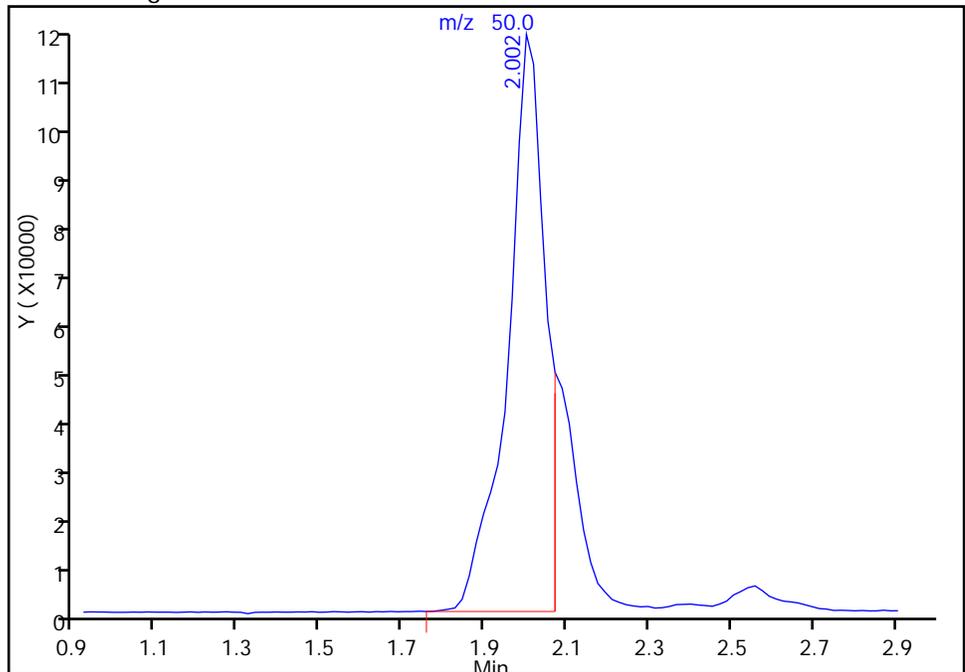
RT: 2.00
Area: 875865
Amount: 34.631596
Amount Units: ug/l

Processing Integration Results



RT: 2.00
Area: 720036
Amount: 28.950240
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 01-Jun-2015 23:35:15
Audit Action: Split an Integrated Peak
Audit Reason: Shouldering

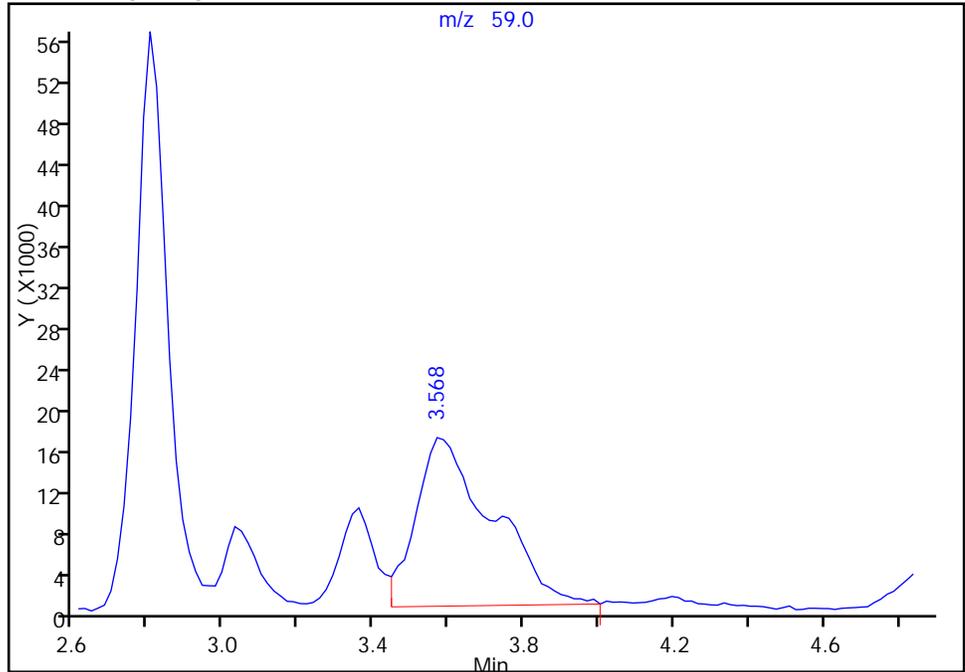
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8225.D
Injection Date: 01-Jun-2015 21:45:30 Instrument ID: VMS_Z
Lims ID: IC
Client ID:
Operator ID: bergerb ALS Bottle#: 7 Worklist Smp#: 14
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

55 2-Methyl-2-propanol, CAS: 75-65-0

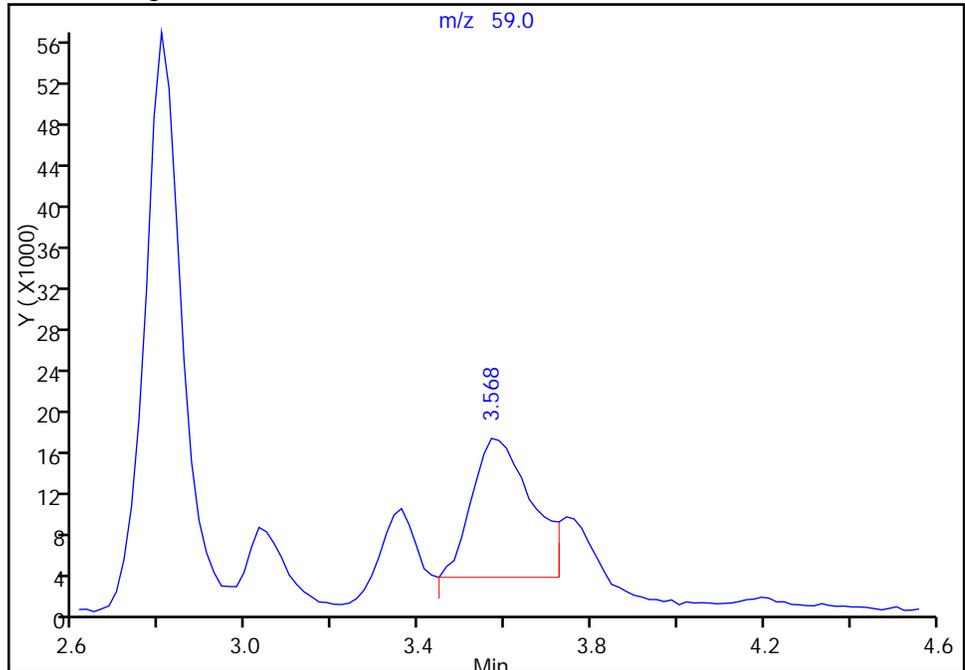
RT: 3.57
Area: 230165
Amount: 477.6266
Amount Units: ug/l

Processing Integration Results



RT: 3.57
Area: 130197
Amount: 275.4500
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 01-Jun-2015 23:35:15
Audit Action: Split an Integrated Peak
Audit Reason: Poor chromatography

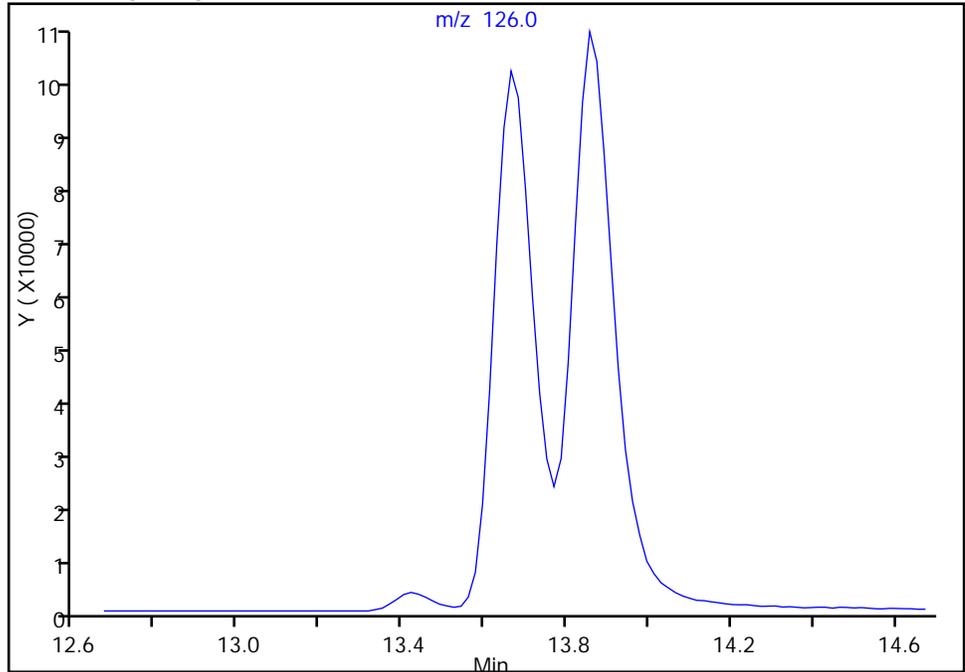
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8225.D
Injection Date: 01-Jun-2015 21:45:30 Instrument ID: VMS_Z
Lims ID: IC
Client ID:
Operator ID: bergerb ALS Bottle#: 7 Worklist Smp#: 14
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

126 2-Chlorotoluene, CAS: 95-49-8

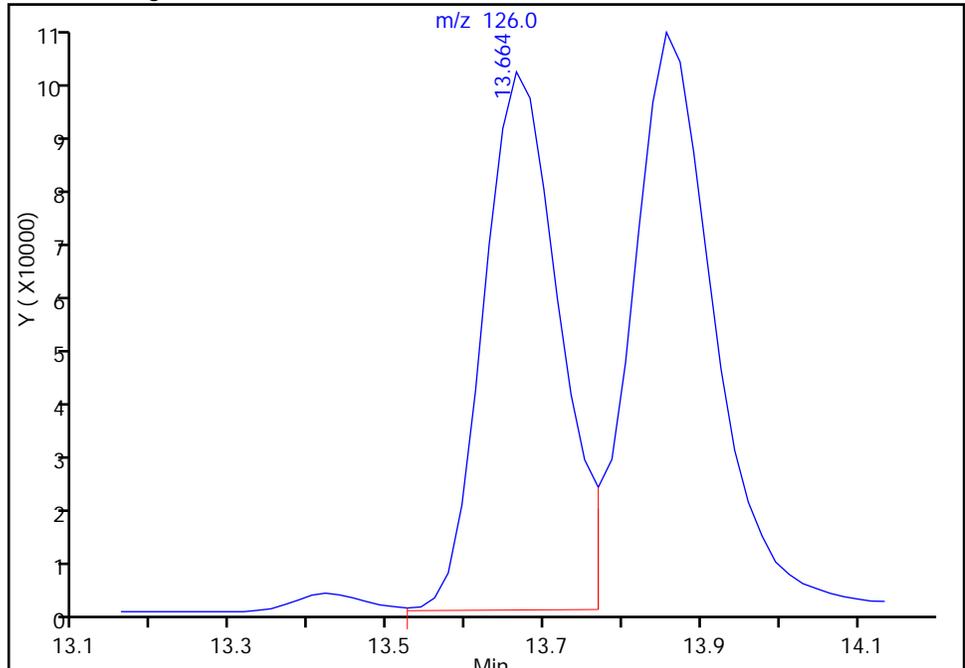
Not Detected
Expected RT: 13.67

Processing Integration Results



RT: 13.66
Area: 642126
Amount: 28.266057
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 01-Jun-2015 23:35:15
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8226.D
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 7
 Inject. Date: 01-Jun-2015 22:07:30 ALS Bottle#: 8 Worklist Smp#: 15
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ic
 Operator ID: bergerb Instrument ID: VMS_Z
 Sublist: chrom-AQ_VMSZ_8260*sub112
 Method: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\AQ_VMSZ_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 02-Jun-2015 02:20:59 Calib Date: 02-Jun-2015 01:06:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8233.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK021

First Level Reviewer: bergerb

Date: 01-Jun-2015 22:53:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.500	3.485	0.015	80	162786	250.0	250.0	
* 2 Fluorobenzene	96	6.390	6.374	0.016	99	908161	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.020	11.022	-0.002	87	215252	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.128	15.113	0.015	51	351136	12.5	12.5	
27 Dichlorodifluoromethane	85	1.916	1.901	0.015	98	2180260	60.0	59.4	
30 Chloromethane	50	2.020	1.988	0.032	98	1452620	60.0	57.9	M
31 Butadiene	54	2.090	2.075	0.015	85	994040	NC	NC	
32 Vinyl chloride	62	2.125	2.110	0.015	98	1474978	60.0	59.2	
35 Bromomethane	94	2.351	2.336	0.015	90	1474477	60.0	60.3	
36 Chloroethane	64	2.403	2.388	0.015	99	938591	60.0	60.5	
37 Dichlorofluoromethane	67	2.543	2.545	-0.002	98	3618478	60.0	61.3	
38 Trichlorofluoromethane	101	2.595	2.597	-0.002	99	3099924	60.0	57.1	
40 Ethyl ether	59	2.804	2.806	-0.002	93	628994	60.0	53.6	
44 Acrolein	56	2.908	2.910	-0.002	97	315348	599.9	607.5	
45 1,1-Dichloroethene	96	3.030	3.032	-0.002	97	1466700	60.0	59.8	
48 Acetone	43	3.047	3.050	-0.003	97	286147	240.0	214.7	
46 1,1,2-Trichloro-1,2,2-trif	151	3.082	3.084	-0.002	97	2142355	60.0	56.9	
49 Iodomethane	142	3.187	3.189	-0.002	99	3754470	60.0	56.4	
50 Carbon disulfide	76	3.274	3.276	-0.002	99	5448256	60.0	57.1	
52 3-Chloro-1-propene	41	3.343	3.345	-0.002	89	2165396	60.0	55.6	
51 Methyl acetate	43	3.343	3.345	-0.002	97	1506981	300.0	266.9	
54 Methylene Chloride	84	3.465	3.450	0.015	94	1185643	60.0	54.2	
55 2-Methyl-2-propanol	59	3.587	3.572	0.015	96	245647	600.0	535.1	M
58 Acrylonitrile	53	3.691	3.676	0.015	99	998899	600.0	569.9	
57 trans-1,2-Dichloroethene	96	3.761	3.763	-0.002	97	1567693	60.0	58.1	
56 Methyl tert-butyl ether	73	3.778	3.781	-0.003	95	2027518	60.0	56.0	
59 Hexane	57	4.057	4.059	-0.002	90	2117048	60.0	55.4	
62 1,1-Dichloroethane	63	4.196	4.198	-0.002	96	2822521	60.0	56.0	
61 Vinyl acetate	43	4.231	4.216	0.015	96	2916084	120.0	112.4	
67 2-Butanone (MEK)	43	4.875	4.877	-0.002	61	642576	240.0	229.0	
65 cis-1,2-Dichloroethene	96	4.875	4.877	-0.002	84	1540802	60.0	58.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
66 2,2-Dichloropropane	77	4.910	4.895	0.015	85	2396091	60.0	57.2	
70 sec-Butyl Alcohol	45	5.119	5.104	0.015	95	980432	1800.0	1781.4	
71 Chlorobromomethane	128	5.171	5.173	-0.002	94	784123	60.0	57.4	
72 Tetrahydrofuran	42	5.258	5.260	-0.002	37	197964	120.0	111.5	
74 Chloroform	83	5.258	5.260	-0.002	94	2698562	60.0	57.3	
75 1,1,1-Trichloroethane	97	5.554	5.539	0.015	98	2568874	60.0	57.8	
76 Cyclohexane	56	5.658	5.643	0.015	90	2431981	60.0	57.7	
78 1,1-Dichloropropene	75	5.745	5.748	-0.003	99	2236124	60.0	55.9	
77 Carbon tetrachloride	117	5.780	5.782	-0.002	97	2743096	60.0	57.4	
80 Isobutyl alcohol	41	5.885	5.869	0.016	97	259962	1500.0	1317.9	
82 1,2-Dichloroethane	62	6.007	6.009	-0.002	54	1031566	60.0	52.2	
81 Benzene	78	6.024	6.009	0.015	97	4118414	60.0	58.9	
84 n-Heptane	43	6.407	6.409	-0.002	90	2477739	60.0	56.4	
85 Trichloroethene	95	6.912	6.896	0.016	97	1858238	60.0	57.4	
89 2-Pentanone	43	7.138	7.140	-0.002	99	1371943	240.0	211.1	
90 1,2-Dichloropropane	63	7.208	7.210	-0.002	96	1509707	60.0	53.1	
87 Methylcyclohexane	55	7.225	7.227	-0.002	93	2075561	60.0	56.8	
92 Dibromomethane	93	7.382	7.366	0.016	94	843523	60.0	54.0	
93 1,4-Dioxane	88		7.434				ND	ND	
94 Dichlorobromomethane	83	7.608	7.610	-0.002	100	2415547	60.0	60.5	
96 2-Chloroethyl vinyl ether	63	8.061	8.063	-0.002	91	495336	60.0	51.5	
97 cis-1,3-Dichloropropene	75	8.269	8.272	-0.003	98	1970157	60.0	56.2	
98 4-Methyl-2-pentanone (MIBK)	43	8.531	8.533	-0.002	95	1924711	240.0	222.9	
99 Toluene	91	8.809	8.811	-0.002	98	4403467	60.0	55.5	
100 trans-1,3-Dichloropropene	75	9.122	9.125	-0.003	91	1324639	60.0	54.3	
101 Ethyl methacrylate	69	9.331	9.333	-0.002	86	1024509	60.0	49.5	
102 1,1,2-Trichloroethane	97	9.418	9.420	-0.002	90	830663	60.0	55.7	
104 1,3-Dichloropropane	76	9.679	9.682	-0.003	92	1391065	60.0	55.4	
103 Tetrachloroethene	164	9.697	9.699	-0.002	98	1808825	60.0	59.7	
105 2-Hexanone	43	9.853	9.856	-0.003	95	1242938	240.0	228.7	
107 Chlorodibromomethane	129	10.062	10.065	-0.003	90	1832930	60.0	59.1	
109 Ethylene Dibromide	107	10.236	10.239	-0.003	99	1184800	60.0	55.3	
110 1-Chlorohexane	91	11.072	11.074	-0.002	77	2156479	60.0	55.8	
111 Chlorobenzene	112	11.072	11.074	-0.002	92	3427613	60.0	60.0	
113 1,1,1,2-Tetrachloroethane	131	11.211	11.213	-0.002	98	1661033	60.0	59.0	
112 Ethylbenzene	106	11.281	11.283	-0.002	98	1586584	60.0	58.1	
114 m-Xylene & p-Xylene	106	11.490	11.475	0.016	98	2182959	60.0	59.5	
115 o-Xylene	106	12.151	12.153	-0.002	97	1883621	60.0	58.3	
116 Styrene	104	12.186	12.171	0.015	94	3109131	60.0	58.9	
117 Bromoform	173	12.465	12.467	-0.002	97	1048852	60.0	58.6	
118 Isopropylbenzene	105	12.813	12.815	-0.002	96	5840807	60.0	55.9	
119 Cyclohexanone	55	12.952	12.937	0.015	89	521862	2400.0	2258.8	
121 Bromobenzene	156	13.300	13.302	-0.002	93	1557252	60.0	58.7	
122 1,1,2,2-Tetrachloroethane	83	13.317	13.320	-0.003	95	1062149	60.0	54.5	
124 1,2,3-Trichloropropane	110	13.370	13.372	-0.002	85	260799	60.0	48.6	
125 trans-1,4-Dichloro-2-buten	53	13.422	13.407	0.015	75	201619	60.0	54.0	
123 N-Propylbenzene	120	13.544	13.546	-0.002	99	1542820	60.0	57.5	
126 2-Chlorotoluene	126	13.666	13.668	-0.002	88	1277479	60.0	57.3	a
128 4-Chlorotoluene	126	13.857	13.859	-0.002	99	1535811	60.0	59.3	
127 1,3,5-Trimethylbenzene	105	13.875	13.877	-0.003	96	4475367	60.0	56.7	
129 tert-Butylbenzene	119	14.449	14.451	-0.002	95	5032958	60.0	57.6	
130 1,2,4-Trimethylbenzene	105	14.536	14.538	-0.002	96	4304093	60.0	55.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
131 sec-Butylbenzene	134	14.849	14.851	-0.002	94	1296063	60.0	56.6	
132 1,3-Dichlorobenzene	146	15.006	15.008	-0.002	96	2660344	60.0	59.5	
133 4-Isopropyltoluene	119	15.128	15.130	-0.002	98	5762578	60.0	58.4	
134 1,4-Dichlorobenzene	146	15.163	15.165	-0.002	93	2960159	60.0	55.6	
138 1,2-Dichlorobenzene	146	15.807	15.809	-0.002	96	2278383	60.0	58.2	
137 n-Butylbenzene	91	15.842	15.844	-0.002	97	5010813	60.0	57.1	
139 1,2-Dibromo-3-Chloropropan	157	16.938	16.923	0.015	90	197926	60.0	52.1	
141 1,2,4-Trichlorobenzene	180	17.861	17.863	-0.002	94	1597007	60.0	55.2	
142 Hexachlorobutadiene	225	18.070	18.072	-0.002	98	1486515	60.0	55.5	
143 Naphthalene	128	18.104	18.089	0.015	97	1429879	60.0	52.9	
144 1,2,3-Trichlorobenzene	180	18.348	18.350	-0.002	95	1184983	60.0	53.4	
S 149 Trihalomethanes, Total	1				0		240.0	235.5	
S 150 Xylenes, Total (URS)	1				0		120.0	117.8	
S 151 Total BTEX	1				0			290.3	
S 148 1,3-Dichloropropene, Total	1				0		120.0	110.4	
S 145 1,2-Dichloroethene, Total	1				0		120.0	116.1	
S 146 Xylenes, Total	106				0		120.0	117.8	
S 147 1,2-Dichloroethene, Total	96				0		120.0	116.1	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MV-567649-D_00001

Amount Added: 1.00

Units: uL

MV-Main A_00023

Amount Added: 30.00

Units: uL

MV-Gas/Ket A_00033

Amount Added: 30.00

Units: uL

MV-2cleve+AVA_00010

Amount Added: 30.00

Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8226.D

Injection Date: 01-Jun-2015 22:07:30

Instrument ID: VMS_Z

Operator ID: bergerb

Lims ID: IC

Worklist Smp#: 15

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

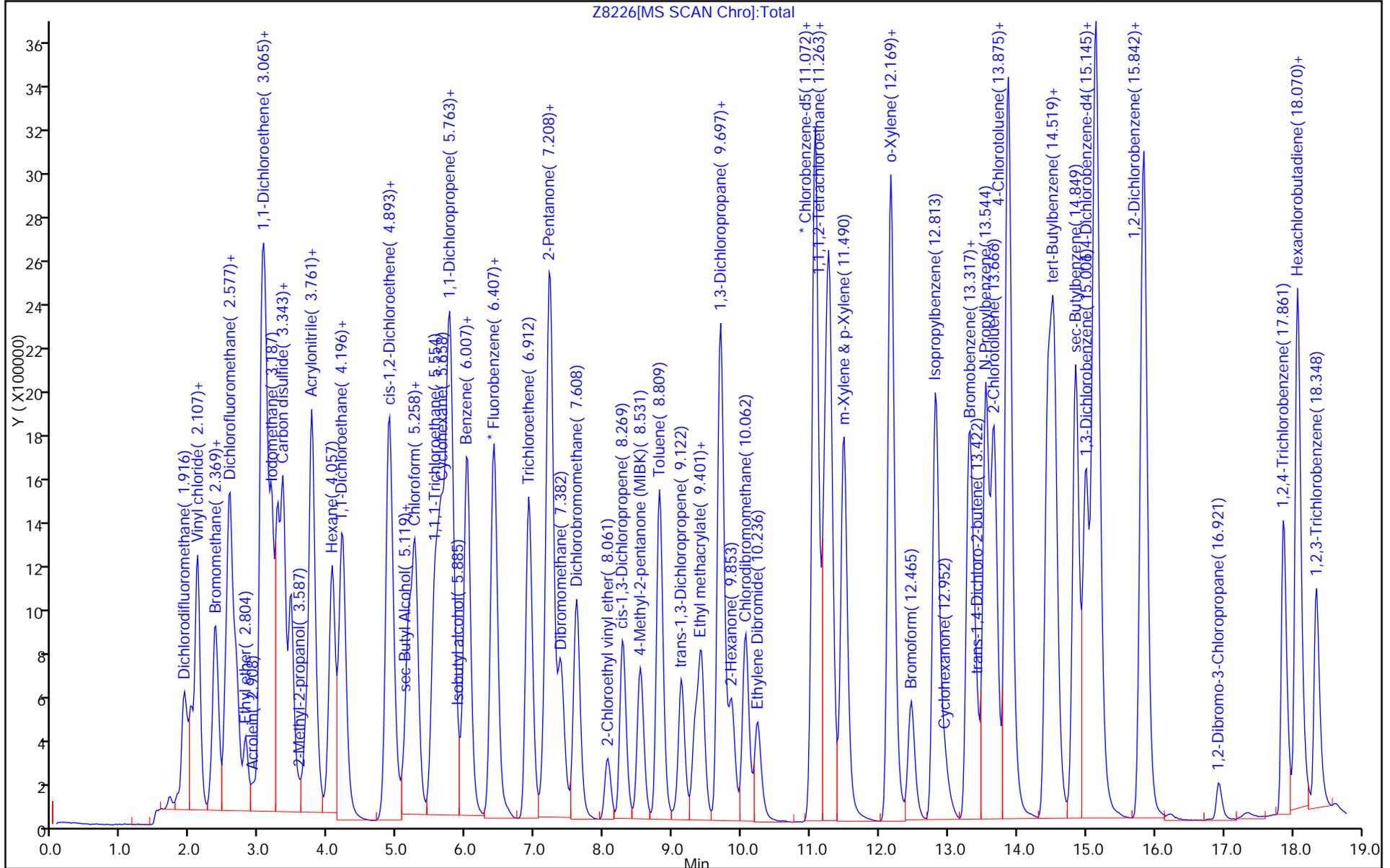
ALS Bottle#: 8

Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



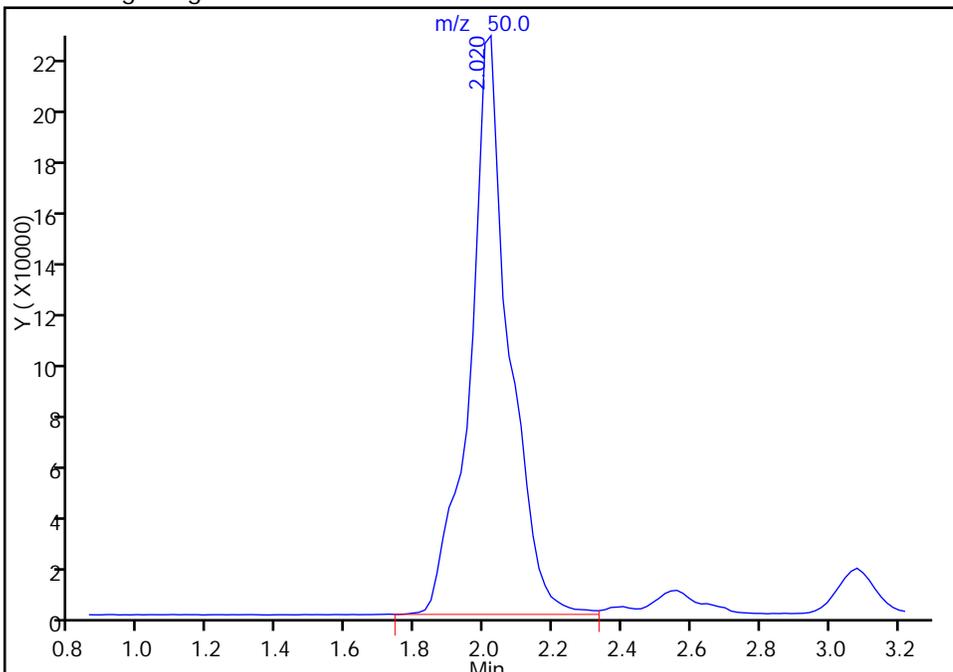
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8226.D
Injection Date: 01-Jun-2015 22:07:30 Instrument ID: VMS_Z
Lims ID: IC
Client ID:
Operator ID: bergerb ALS Bottle#: 8 Worklist Smp#: 15
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

30 Chloromethane, CAS: 74-87-3

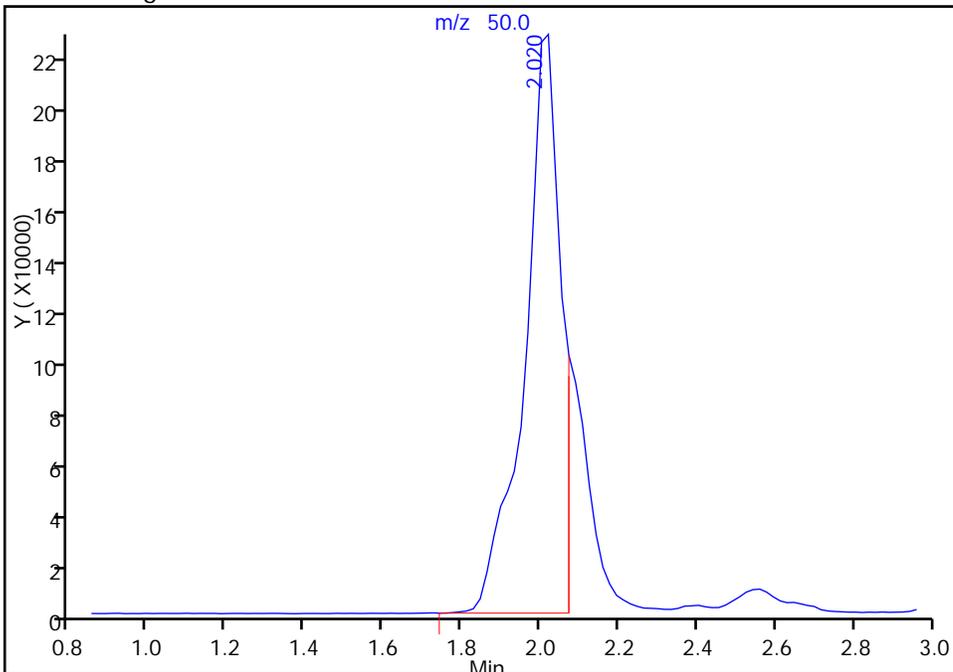
RT: 2.02
Area: 1765870
Amount: 60.717414
Amount Units: ug/l

Processing Integration Results



RT: 2.02
Area: 1452620
Amount: 57.936091
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 01-Jun-2015 23:33:38
Audit Action: Split an Integrated Peak
Audit Reason: Shouldering

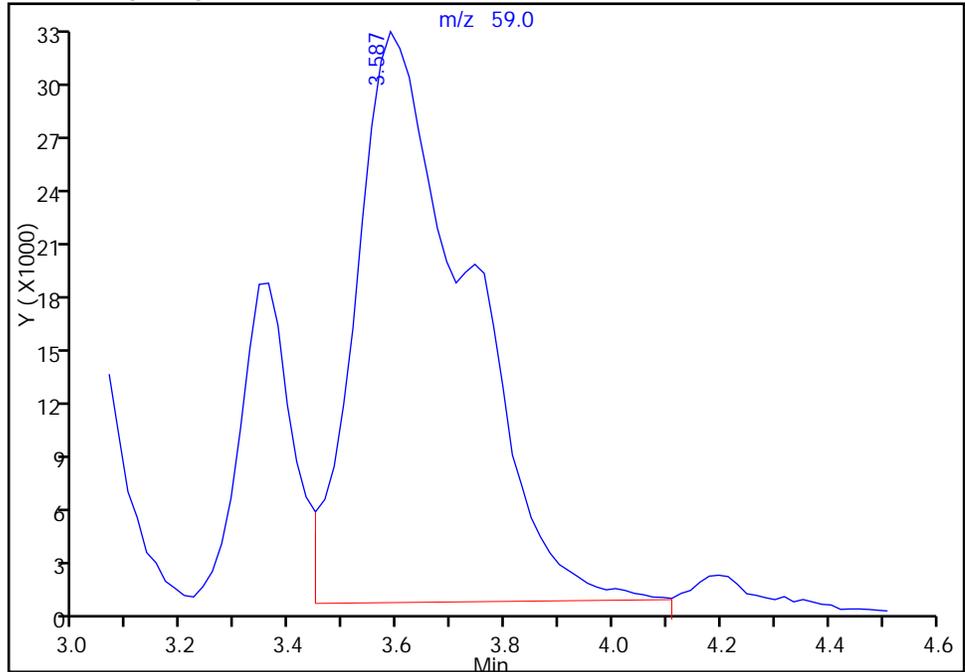
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8226.D
Injection Date: 01-Jun-2015 22:07:30 Instrument ID: VMS_Z
Lims ID: IC
Client ID:
Operator ID: bergerb ALS Bottle#: 8 Worklist Smp#: 15
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

55 2-Methyl-2-propanol, CAS: 75-65-0

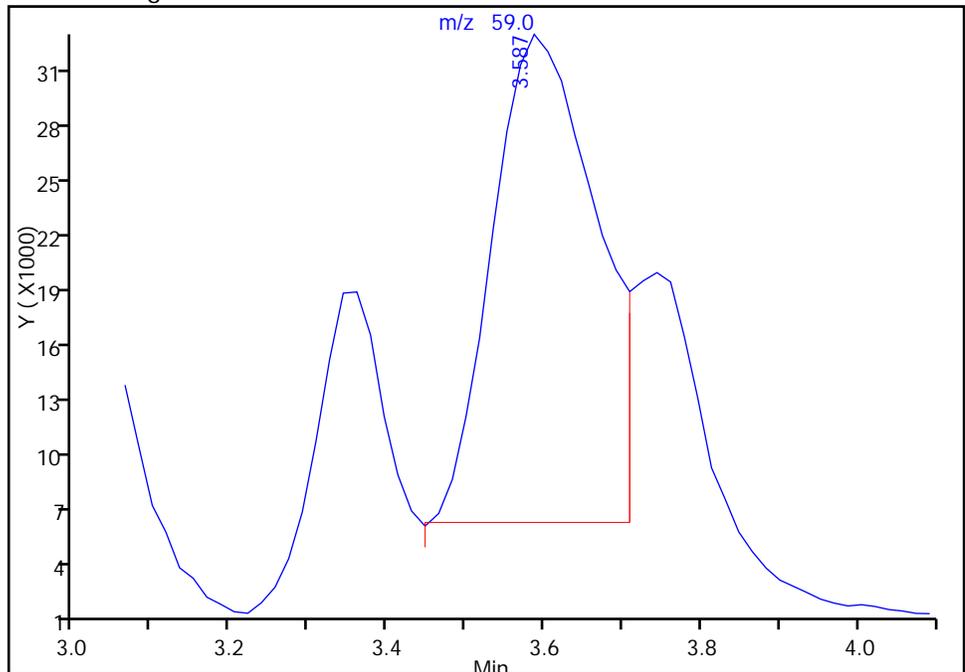
RT: 3.59
Area: 454018
Amount: 602.0762
Amount Units: ug/l

Processing Integration Results



RT: 3.59
Area: 245647
Amount: 535.1430
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 01-Jun-2015 23:33:38
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

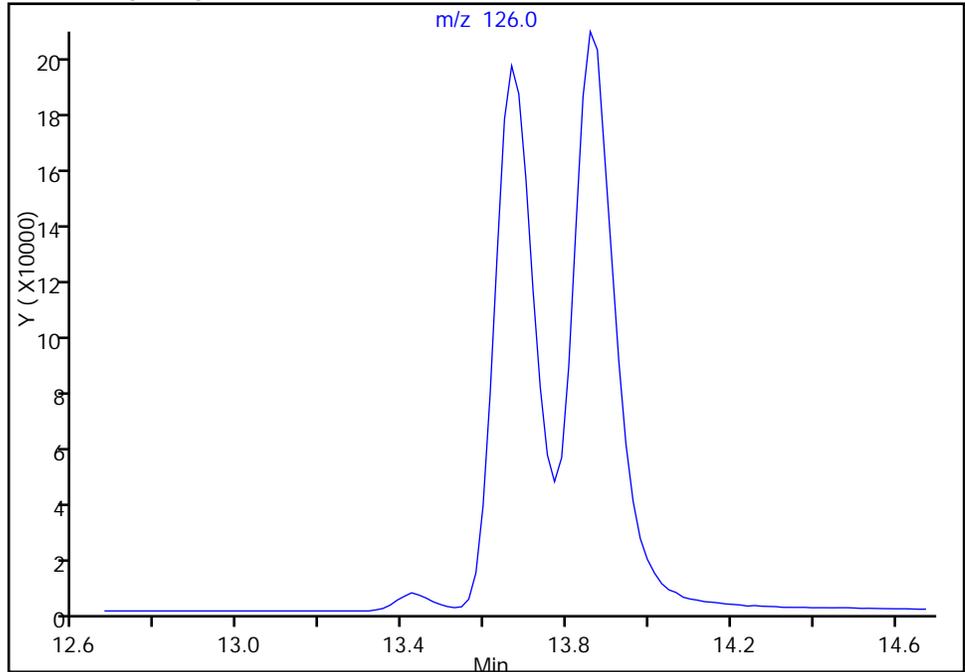
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8226.D
Injection Date: 01-Jun-2015 22:07:30 Instrument ID: VMS_Z
Lims ID: IC
Client ID:
Operator ID: bergerb ALS Bottle#: 8 Worklist Smp#: 15
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

126 2-Chlorotoluene, CAS: 95-49-8

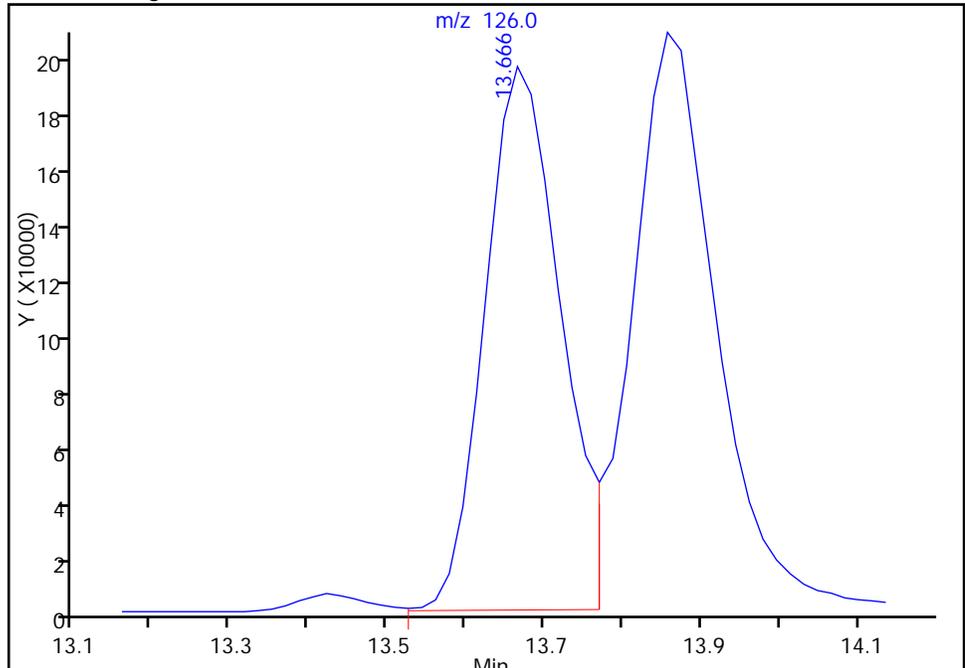
Not Detected
Expected RT: 13.67

Processing Integration Results



RT: 13.67
Area: 1277479
Amount: 57.254919
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 01-Jun-2015 23:33:38
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8228.D
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 01-Jun-2015 23:13:30 ALS Bottle#: 10 Worklist Smp#: 16
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ic
 Operator ID: bergerb Instrument ID: VMS_Z
 Sublist: chrom-AQ_VMSZ_8260*sub112
 Method: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\AQ_VMSZ_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 02-Jun-2015 02:32:58 Calib Date: 02-Jun-2015 01:06:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8233.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK021

First Level Reviewer: bergerb

Date: 02-Jun-2015 01:36:34

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.462	3.468	-0.006	93	156144	250.0	250.0	
* 2 Fluorobenzene	96	6.369	6.375	-0.006	98	891205	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.016	11.023	-0.007	85	218476	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.125	15.113	0.012	96	336118	12.5	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.446	5.452	-0.006	93	50842	1.00	1.19	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	5.899	5.887	0.012	93	20706	1.00	1.28	
\$ 10 Toluene-d8 (Surr)	98	8.684	8.690	-0.006	92	81454	1.00	1.15	
\$ 11 4-Bromofluorobenzene (Surr	95	13.053	13.042	0.011	89	44498	1.00	1.17	
34 Ethylene oxide	43	2.261	2.284	-0.023	99	74517	200.0	235.2	
39 Ethanol	45		2.702				ND	ND	
42 Propene oxide	58	2.835	2.859	-0.024	96	72296	50.0	51.7	
47 Isopropyl alcohol	45		3.155				ND	ND	
53 Acetonitrile	41		3.294				ND	ND	
60 Isopropyl ether	87	4.263	4.286	-0.023	98	24599	1.25	1.46	
63 2-Chloro-1,3-butadiene	53	4.280	4.303	-0.023	89	39659	1.00	1.19	
64 Tert-butyl ethyl ether	59	4.715	4.721	-0.006	99	87867	1.25	1.49	
69 Propionitrile	54	4.907	4.895	0.012	58	6925	12.5	13.5	
68 Ethyl acetate	43	4.924	4.930	-0.006	95	11953	NC	NC	
73 Methacrylonitrile	41	5.081	5.104	-0.023	92	38613	10.0	10.7	
83 Tert-amyl methyl ether	73	6.177	6.183	-0.006	96	56125	1.25	1.18	
86 n-Butanol	56		6.793				ND	ND	
88 Ethyl acrylate	55	6.821	6.810	0.011	1	1148	NC	NC	
91 Methyl methacrylate	100	7.361	7.384	-0.023	91	5489	2.00	1.93	
95 2-Nitropropane	41		7.907				ND	ND	
106 Tetrahydrothiophene	60	10.024	10.030	-0.006	67	7002	1.00	1.23	
120 cis-1,4-Dichloro-2-butene	53	12.914	12.885	0.029	0	5193	1.00	1.64	
135 1,2,3-Trimethylbenzene	105	15.281	15.270	0.011	95	73764	1.00	1.11	
140 1,3,5-Trichlorobenzene	180	17.213	17.202	0.011	95	40992	1.00	1.08	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Reagents:

MV-567649-D_00001	Amount Added: 1.00	Units: uL
MV-Supp A_00011	Amount Added: 0.50	Units: uL
MV-ARCH SS A_00047	Amount Added: 0.08	Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8228.D

Injection Date: 01-Jun-2015 23:13:30

Instrument ID: VMS_Z

Operator ID: bergerb

Lims ID: IC

Worklist Smp#: 16

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

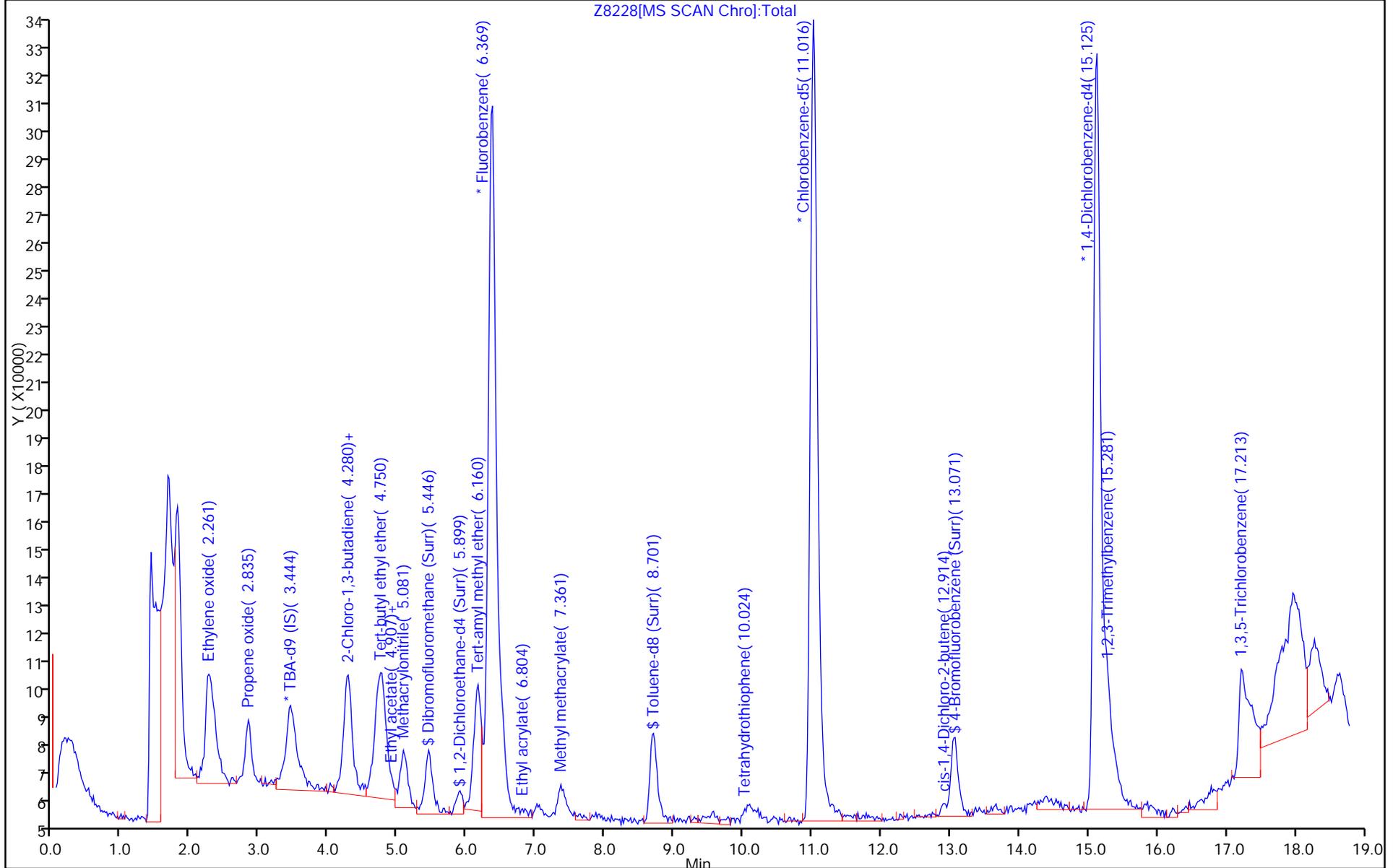
ALS Bottle#: 10

Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8229.D
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 01-Jun-2015 23:35:30 ALS Bottle#: 11 Worklist Smp#: 17
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ic
 Operator ID: bergerb Instrument ID: VMS_Z
 Sublist: chrom-AQ_VMSZ_8260*sub112
 Method: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\AQ_VMSZ_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 02-Jun-2015 02:33:00 Calib Date: 02-Jun-2015 01:06:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8233.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK021

First Level Reviewer: bergerb Date: 02-Jun-2015 01:35:33

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.484	3.468	0.016	92	145556	250.0	250.0	
* 2 Fluorobenzene	96	6.374	6.375	-0.001	98	904858	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.022	11.023	-0.001	85	220429	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.112	15.113	-0.001	96	336602	12.5	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.469	5.452	0.017	94	91766	2.00	2.12	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	5.904	5.887	0.017	93	35783	2.00	2.18	
\$ 10 Toluene-d8 (Surr)	98	8.707	8.690	0.017	92	148891	2.00	2.08	
\$ 11 4-Bromofluorobenzene (Surr	95	13.041	13.042	-0.001	89	81194	2.00	2.13	
34 Ethylene oxide	43	2.301	2.284	0.017	99	111163	400.0	345.6	
39 Ethanol	45	2.806	2.702	0.104	18	6426	100.0	122.3	
42 Propene oxide	58	2.858	2.859	-0.001	97	136489	100.0	96.1	
47 Isopropyl alcohol	45	3.171	3.155	0.016	38	4965	20.0	23.9	M
53 Acetonitrile	41	3.276	3.294	-0.018	57	2581	25.0	24.4	
60 Isopropyl ether	87	4.285	4.286	-0.001	98	42614	2.50	2.49	
63 2-Chloro-1,3-butadiene	53	4.303	4.303	0.000	88	68306	2.00	2.02	
64 Tert-butyl ethyl ether	59	4.720	4.721	-0.001	99	150317	2.50	2.51	
69 Propionitrile	54	4.929	4.895	0.034	90	11516	25.0	22.1	
68 Ethyl acetate	43	4.929	4.930	-0.001	98	25507	NC	NC	
73 Methacrylonitrile	41	5.121	5.104	0.017	91	70175	20.0	19.2	
83 Tert-amyl methyl ether	73	6.183	6.183	0.000	94	130703	2.50	2.71	M
86 n-Butanol	56	6.827	6.793	0.034	69	6708	50.0	44.1	M
88 Ethyl acrylate	55	6.827	6.810	0.017	1	1001	NC	NC	
91 Methyl methacrylate	100	7.384	7.384	0.000	91	10763	4.00	3.72	
95 2-Nitropropane	41	7.888	7.907	-0.019	93	4613	4.00	3.52	
106 Tetrahydrothiophene	60	10.047	10.030	0.017	89	10009	2.00	1.74	
120 cis-1,4-Dichloro-2-butene	53	12.884	12.885	-0.001	0	7918	2.00	2.49	
135 1,2,3-Trimethylbenzene	105	15.269	15.270	-0.001	95	131210	2.00	1.96	
140 1,3,5-Trichlorobenzene	180	17.219	17.202	0.017	95	77061	2.00	2.02	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

MV-567649-D_00001	Amount Added: 1.00	Units: uL
MV-Supp A_00011	Amount Added: 1.00	Units: uL
MV-ARCH SS A_00047	Amount Added: 0.16	Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8229.D

Injection Date: 01-Jun-2015 23:35:30

Instrument ID: VMS_Z

Operator ID: bergerb

Lims ID: IC

Worklist Smp#: 17

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

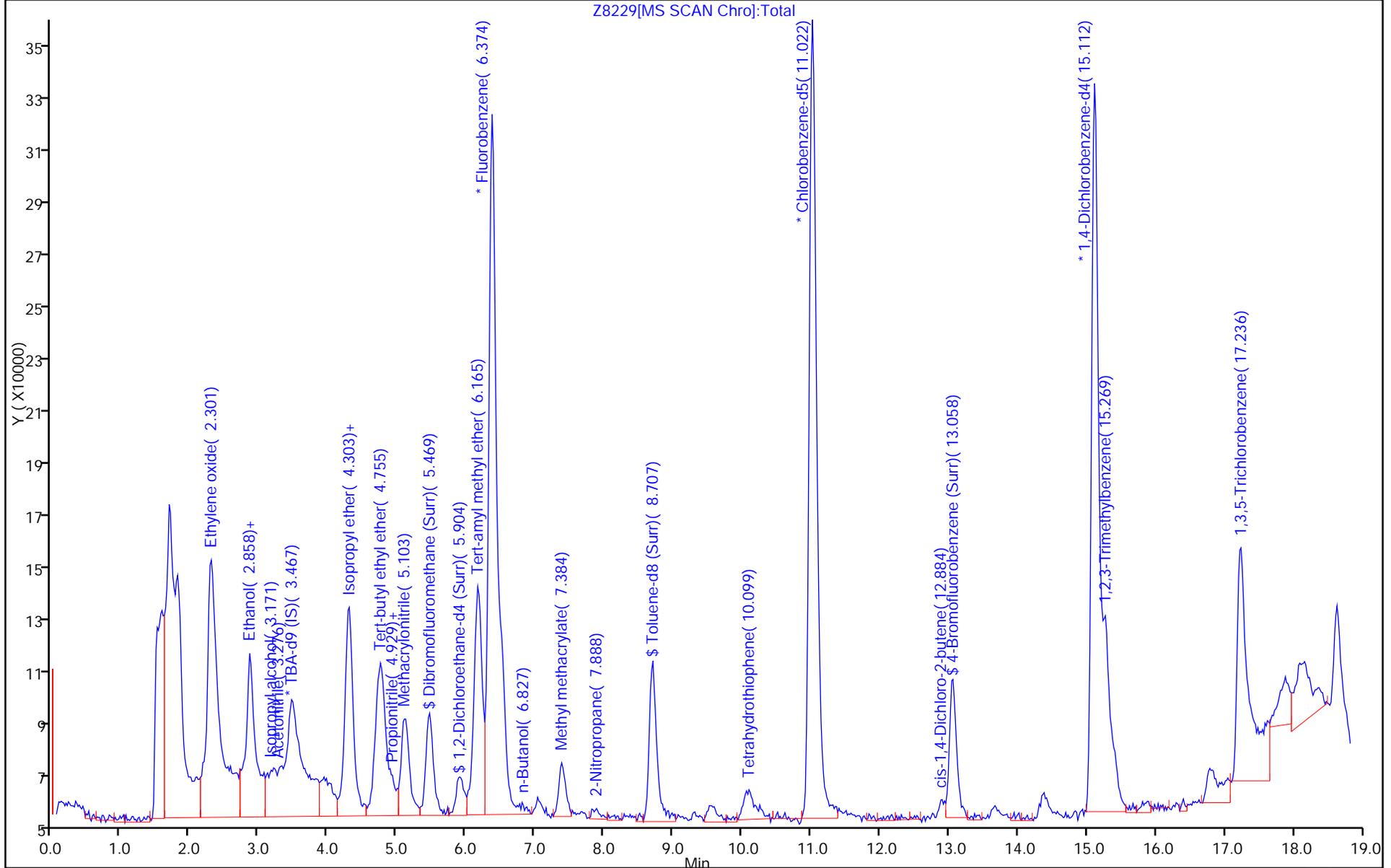
ALS Bottle#: 11

Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



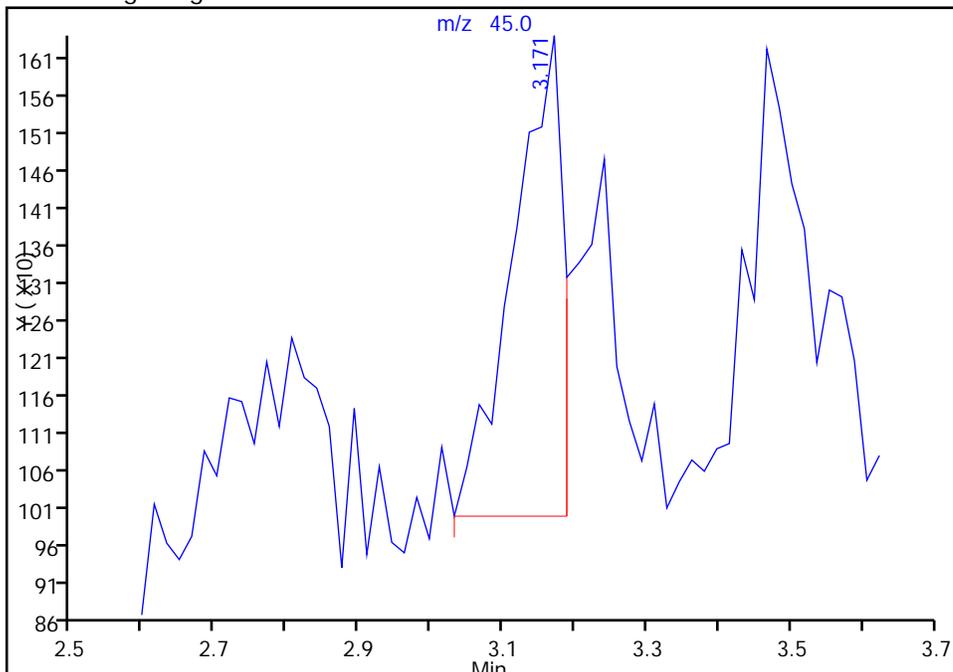
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8229.D
Injection Date: 01-Jun-2015 23:35:30 Instrument ID: VMS_Z
Lims ID: IC
Client ID:
Operator ID: bergerb ALS Bottle#: 11 Worklist Smp#: 17
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector MS SCAN

47 Isopropyl alcohol, CAS: 67-63-0

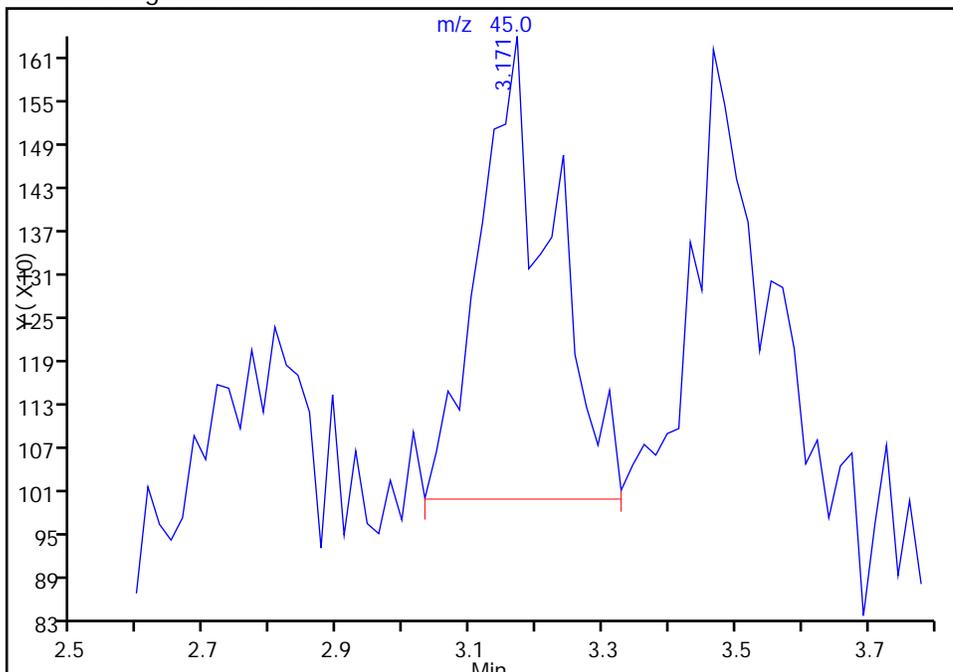
RT: 3.17
Area: 3128
Amount: 24.052336
Amount Units: ug/l

Processing Integration Results



RT: 3.17
Area: 4965
Amount: 23.921035
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 02-Jun-2015 01:59:47
Audit Action: Manually Integrated
Audit Reason: Split Peak

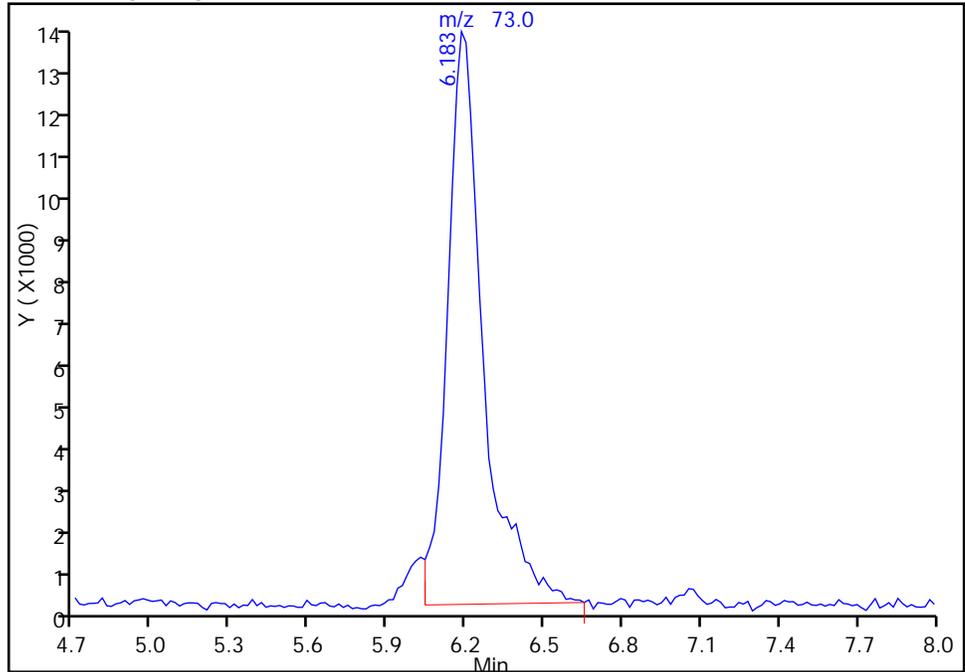
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8229.D
Injection Date: 01-Jun-2015 23:35:30 Instrument ID: VMS_Z
Lims ID: IC
Client ID:
Operator ID: bergerb ALS Bottle#: 11 Worklist Smp#: 17
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

83 Tert-amyl methyl ether, CAS: 994-05-8

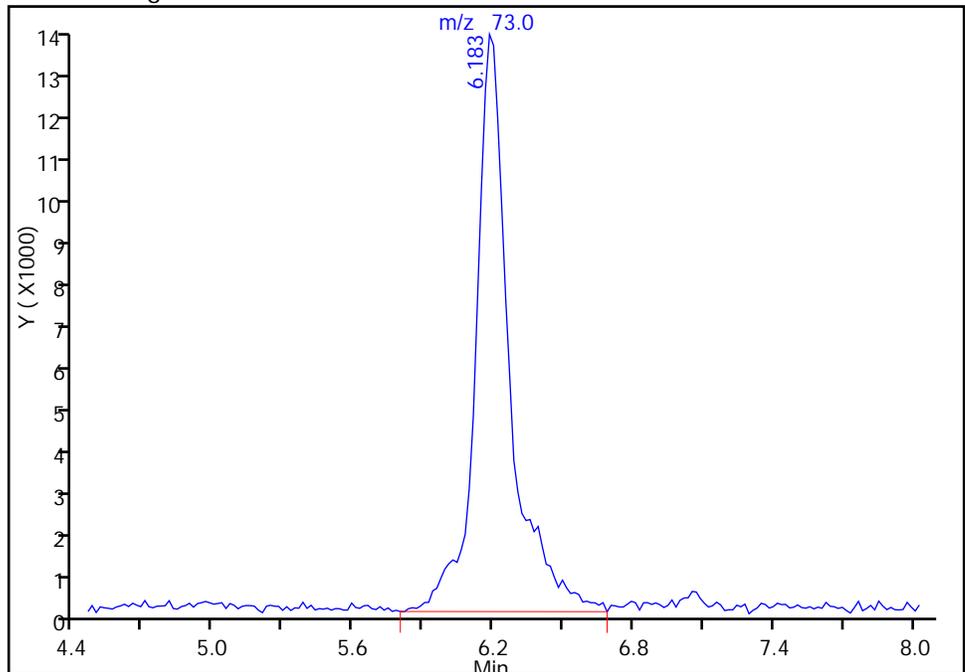
RT: 6.18
Area: 120423
Amount: 2.536396
Amount Units: ug/l

Processing Integration Results



RT: 6.18
Area: 130703
Amount: 2.710112
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 02-Jun-2015 02:04:18
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

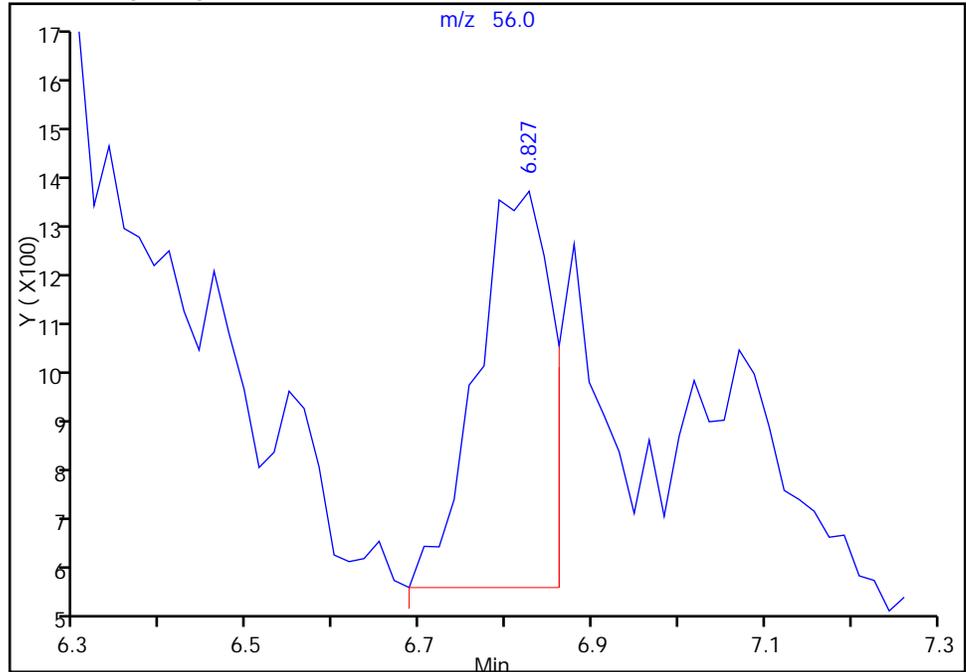
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8229.D
Injection Date: 01-Jun-2015 23:35:30 Instrument ID: VMS_Z
Lims ID: IC
Client ID:
Operator ID: bergerb ALS Bottle#: 11 Worklist Smp#: 17
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

86 n-Butanol, CAS: 71-36-3

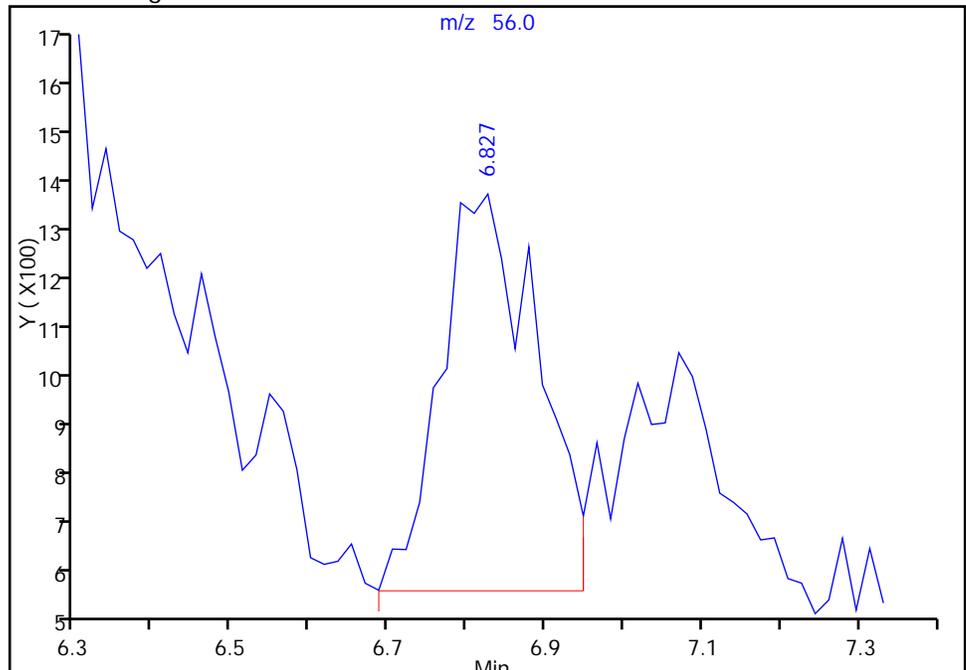
RT: 6.83
Area: 4780
Amount: 47.867543
Amount Units: ug/l

Processing Integration Results



RT: 6.83
Area: 6708
Amount: 44.115340
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 02-Jun-2015 02:04:18
Audit Action: Manually Integrated
Audit Reason: Split Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8230.D
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 01-Jun-2015 23:58:30 ALS Bottle#: 12 Worklist Smp#: 18
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ic
 Operator ID: bergerb Instrument ID: VMS_Z
 Sublist: chrom-AQ_VMSZ_8260*sub112
 Method: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\AQ_VMSZ_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 02-Jun-2015 02:33:02 Calib Date: 02-Jun-2015 01:06:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8233.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK021

First Level Reviewer: bergerb Date: 02-Jun-2015 01:34:45

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.484	3.468	0.016	90	168283	250.0	250.0	
* 2 Fluorobenzene	96	6.374	6.375	-0.001	98	897868	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.022	11.023	-0.001	87	221434	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.112	15.113	-0.001	97	345053	12.5	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.469	5.452	0.017	94	220084	5.00	5.13	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	5.904	5.887	0.017	93	84524	5.00	5.18	
\$ 10 Toluene-d8 (Surr)	98	8.706	8.690	0.016	92	362915	5.00	5.05	
\$ 11 4-Bromofluorobenzene (Surr	95	13.058	13.042	0.016	89	196298	5.00	5.02	
34 Ethylene oxide	43	2.301	2.284	0.017	99	313553	1000.0	982.5	
39 Ethanol	45	2.805	2.702	0.103	19	8732	250.0	217.4	
42 Propene oxide	58	2.858	2.859	-0.001	96	360158	250.0	255.5	
47 Isopropyl alcohol	45	3.154	3.155	-0.001	29	13218	50.0	47.9	a
53 Acetonitrile	41	3.275	3.294	-0.019	96	19429	62.5	68.6	
60 Isopropyl ether	87	4.302	4.286	0.016	99	104924	6.25	6.19	
63 2-Chloro-1,3-butadiene	53	4.302	4.303	-0.001	88	166531	5.00	4.95	
64 Tert-butyl ethyl ether	59	4.720	4.721	-0.001	99	368867	6.25	6.21	
69 Propionitrile	54	4.912	4.895	0.017	52	31600	62.5	61.2	
68 Ethyl acetate	43	4.947	4.930	0.017	96	62861	NC	NC	
73 Methacrylonitrile	41	5.103	5.104	-0.001	90	182139	50.0	50.3	
83 Tert-amyl methyl ether	73	6.182	6.183	-0.001	98	311360	6.25	6.51	M
86 n-Butanol	56	6.809	6.793	0.016	81	19811	125.0	131.3	
88 Ethyl acrylate	55	6.774	6.810	-0.036	8	2279	NC	NC	
91 Methyl methacrylate	100	7.401	7.384	0.017	90	30202	10.0	10.5	
95 2-Nitropropane	41	7.888	7.907	-0.019	91	13269	10.0	10.2	
106 Tetrahydrothiophene	60	10.029	10.030	-0.001	93	27511	5.00	4.76	
120 cis-1,4-Dichloro-2-butene	53	12.884	12.885	-0.001	0	16100	5.00	4.94	
135 1,2,3-Trimethylbenzene	105	15.269	15.270	-0.001	96	336235	5.00	4.91	
140 1,3,5-Trichlorobenzene	180	17.201	17.202	-0.001	97	195603	5.00	5.00	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MV-567649-D_00001

Amount Added: 1.00

Units: uL

MV-Supp A_00011

Amount Added: 2.50

Units: uL

MV-ARCH SS A_00047

Amount Added: 0.40

Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8230.D

Injection Date: 01-Jun-2015 23:58:30

Instrument ID: VMS_Z

Operator ID: bergerb

Lims ID: IC

Worklist Smp#: 18

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

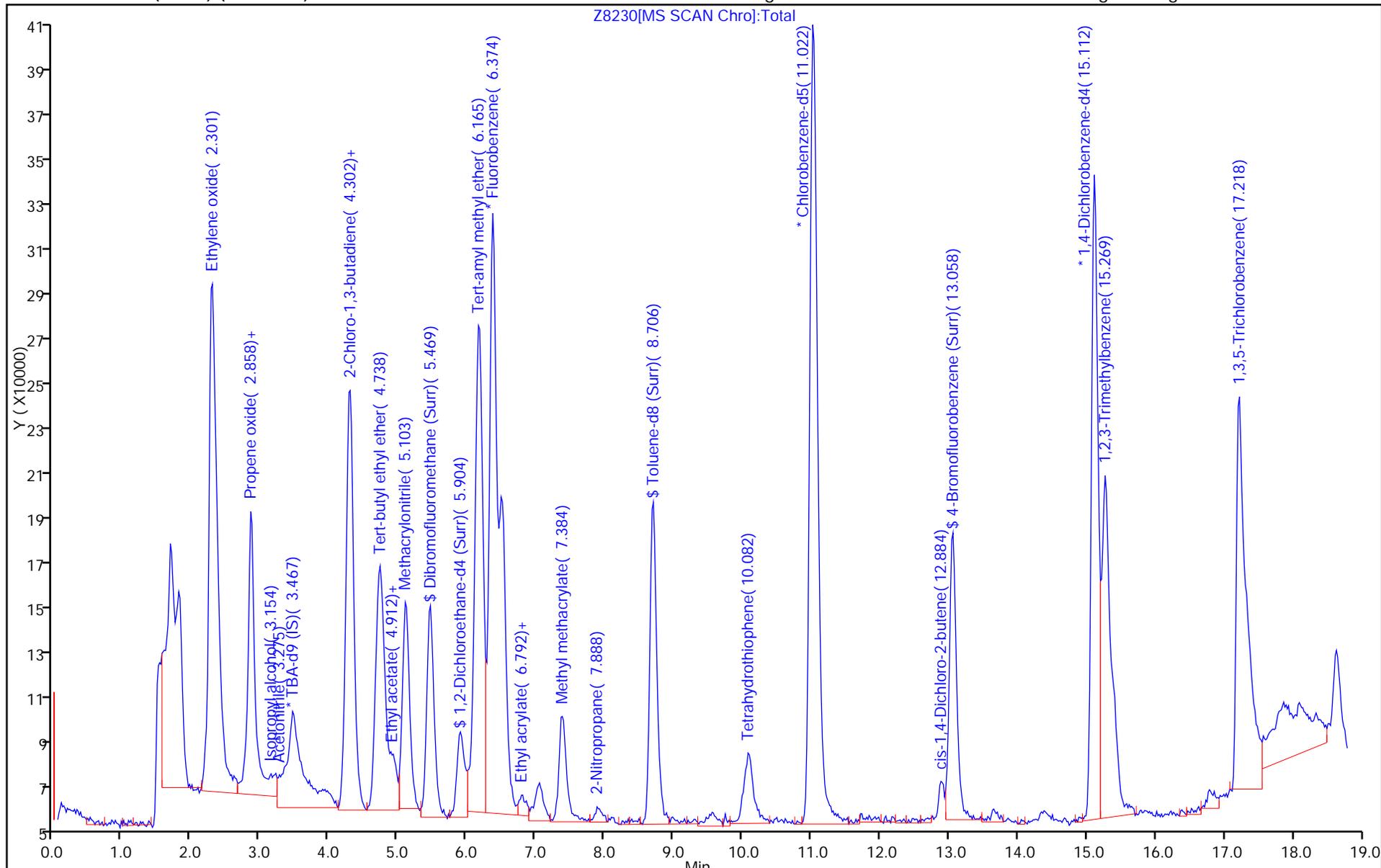
ALS Bottle#: 12

Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



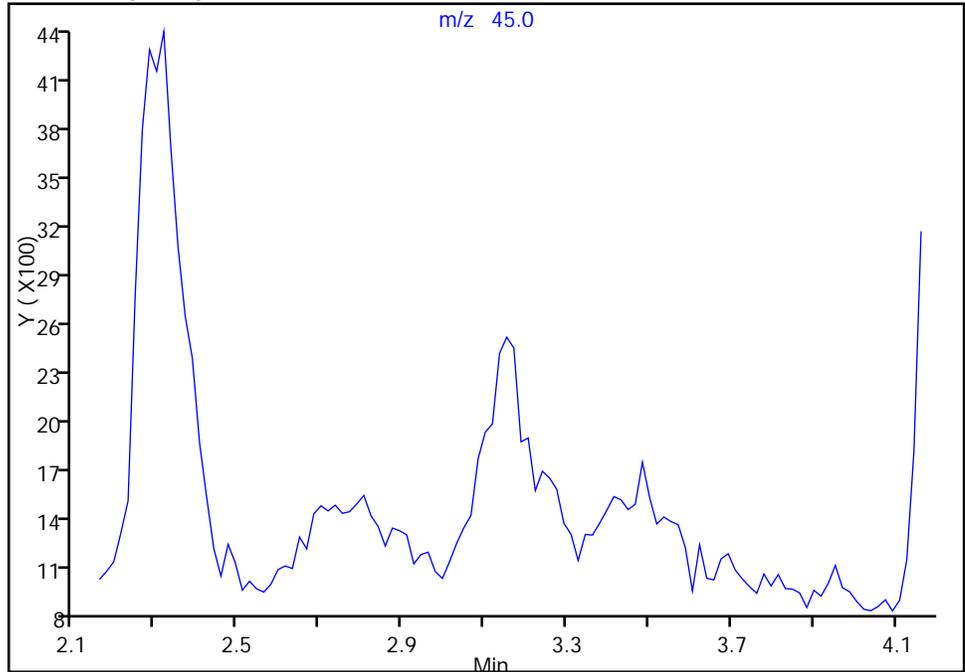
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8230.D
Injection Date: 01-Jun-2015 23:58:30 Instrument ID: VMS_Z
Lims ID: IC
Client ID:
Operator ID: bergerb ALS Bottle#: 12 Worklist Smp#: 18
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

47 Isopropyl alcohol, CAS: 67-63-0

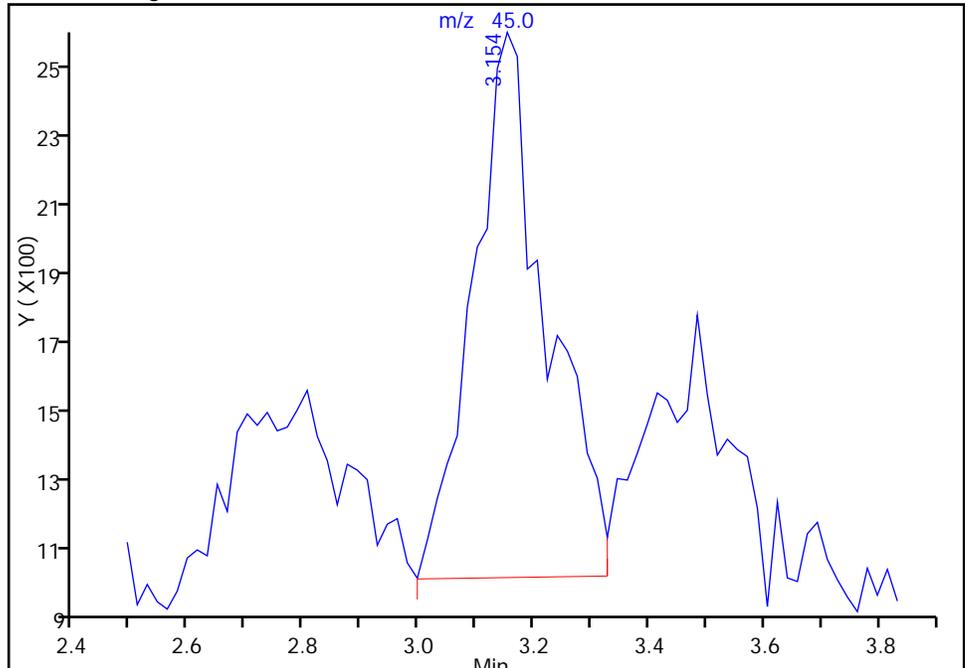
Not Detected
Expected RT: 3.15

Processing Integration Results



RT: 3.15
Area: 13218
Amount: 47.879834
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 02-Jun-2015 02:06:33
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

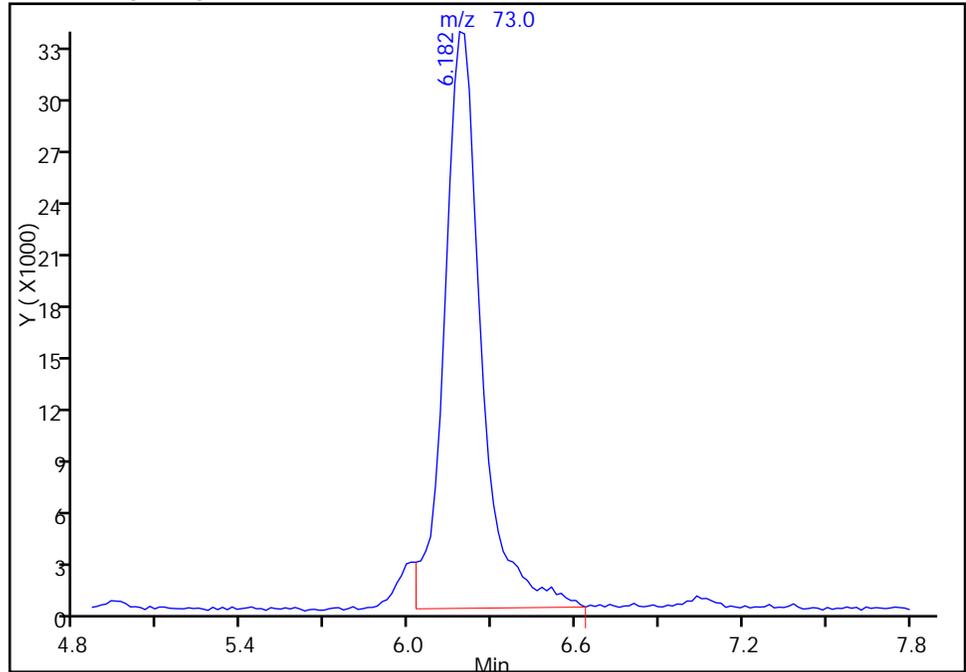
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8230.D
Injection Date: 01-Jun-2015 23:58:30 Instrument ID: VMS_Z
Lims ID: IC
Client ID:
Operator ID: bergerb ALS Bottle#: 12 Worklist Smp#: 18
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

83 Tert-amyl methyl ether, CAS: 994-05-8

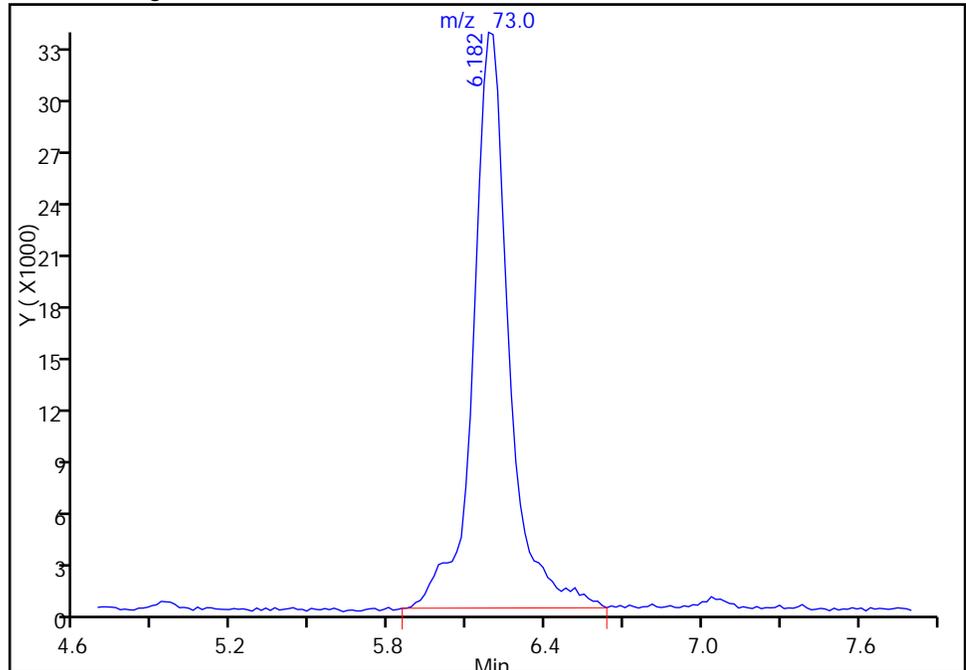
RT: 6.18
Area: 302543
Amount: 6.445288
Amount Units: ug/l

Processing Integration Results



RT: 6.18
Area: 311360
Amount: 6.506275
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 02-Jun-2015 02:06:33
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8231.D
 Lims ID: ICIS
 Client ID:
 Sample Type: ICIS Calib Level: 5
 Inject. Date: 02-Jun-2015 00:21:30 ALS Bottle#: 13 Worklist Smp#: 19
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: icis
 Operator ID: bergerb Instrument ID: VMS_Z
 Sublist: chrom-AQ_VMSZ_8260*sub112
 Method: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\AQ_VMSZ_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 02-Jun-2015 02:33:03 Calib Date: 02-Jun-2015 01:06:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8233.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK021

First Level Reviewer: bergerb Date: 02-Jun-2015 01:29:49

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.468	3.468	0.000	91	142858	250.0	250.0	
* 2 Fluorobenzene	96	6.375	6.375	0.000	99	882208	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.023	11.023	0.000	88	217317	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.113	15.113	0.000	96	337853	12.5	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.452	5.452	0.000	94	415996	10.0	9.87	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	5.887	5.887	0.000	93	156661	10.0	9.78	
\$ 10 Toluene-d8 (Surr)	98	8.690	8.690	0.000	93	700935	10.0	9.93	
\$ 11 4-Bromofluorobenzene (Surr	95	13.042	13.042	0.000	89	384120	10.0	10.0	
34 Ethylene oxide	43	2.284	2.284	0.000	99	602144	2000.0	1920.3	
39 Ethanol	45	2.702	2.702	0.000	50	14039	500.0	441.6	
42 Propene oxide	58	2.859	2.859	0.000	96	675852	500.0	488.0	
47 Isopropyl alcohol	45	3.155	3.155	0.000	27	25584	100.0	84.9	a
53 Acetonitrile	41	3.294	3.294	0.000	99	36616	125.0	115.3	
60 Isopropyl ether	87	4.286	4.286	0.000	98	198751	12.5	11.9	
63 2-Chloro-1,3-butadiene	53	4.303	4.303	0.000	89	312942	10.0	9.48	
64 Tert-butyl ethyl ether	59	4.721	4.721	0.000	99	685981	12.5	11.8	
69 Propionitrile	54	4.895	4.895	0.000	53	61483	125.0	121.1	
68 Ethyl acetate	43	4.930	4.930	0.000	98	124591	NC	NC	
73 Methacrylonitrile	41	5.104	5.104	0.000	91	349031	100.0	98.1	
83 Tert-amyl methyl ether	73	6.183	6.183	0.000	98	579115	12.5	12.3	M
86 n-Butanol	56	6.793	6.793	0.000	84	37029	250.0	249.8	
88 Ethyl acrylate	55	6.810	6.810	0.000	26	6643	NC	NC	
91 Methyl methacrylate	100	7.384	7.384	0.000	89	58050	20.0	20.6	
95 2-Nitropropane	41	7.907	7.907	0.000	97	25839	20.0	20.2	
106 Tetrahydrothiophene	60	10.030	10.030	0.000	93	56241	10.0	9.91	
120 cis-1,4-Dichloro-2-butene	53	12.885	12.885	0.000	0	30524	10.0	9.56	
135 1,2,3-Trimethylbenzene	105	15.270	15.270	0.000	97	661131	10.0	9.86	
140 1,3,5-Trichlorobenzene	180	17.202	17.202	0.000	97	379351	10.0	9.90	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MV-567649-D_00001	Amount Added: 1.00	Units: uL
MV-Supp A_00011	Amount Added: 5.00	Units: uL
MV-ARCH SS A_00047	Amount Added: 0.80	Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8231.D

Injection Date: 02-Jun-2015 00:21:30

Instrument ID: VMS_Z

Operator ID: bergerb

Lims ID: ICIS

Worklist Smp#: 19

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

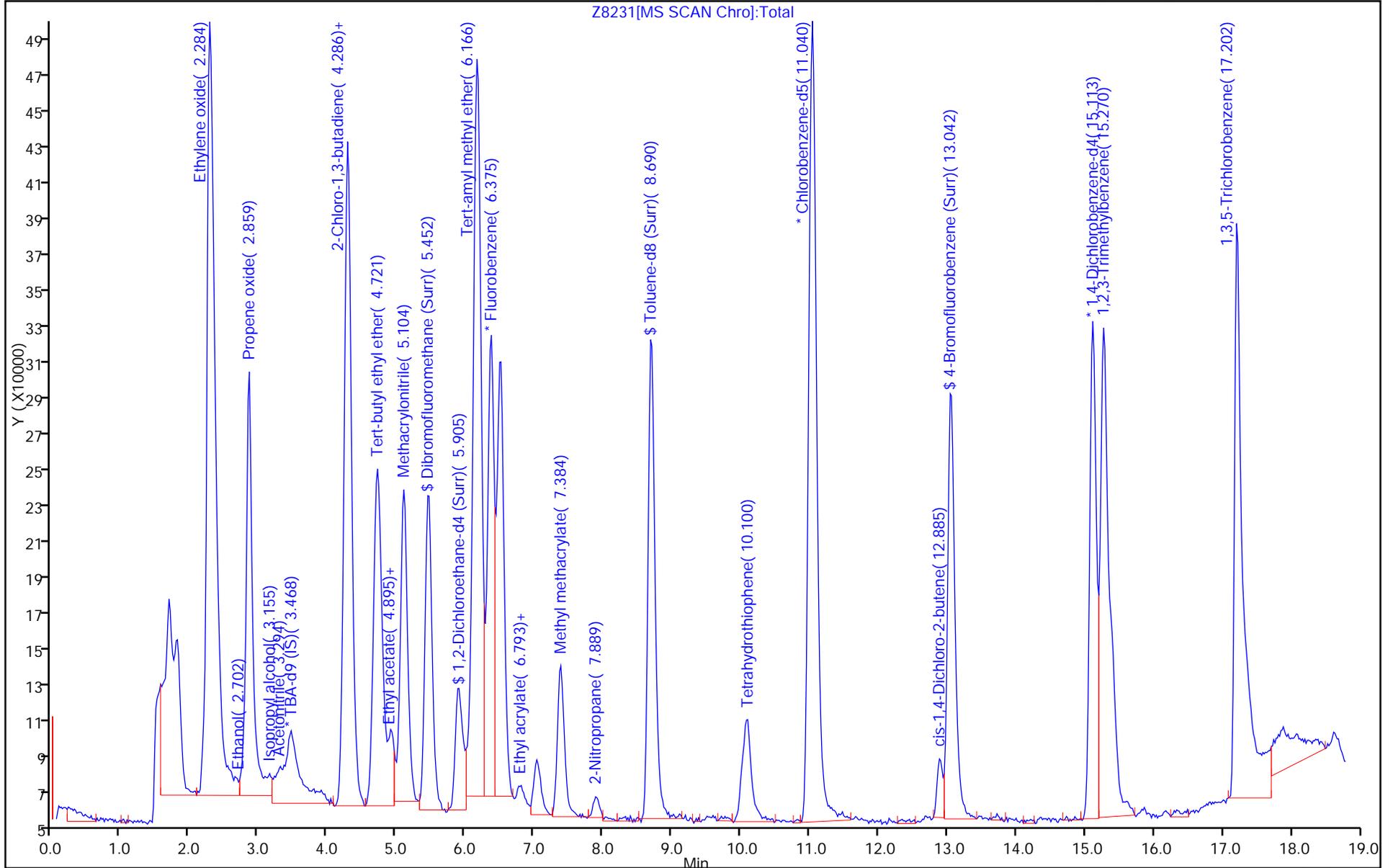
ALS Bottle#: 13

Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



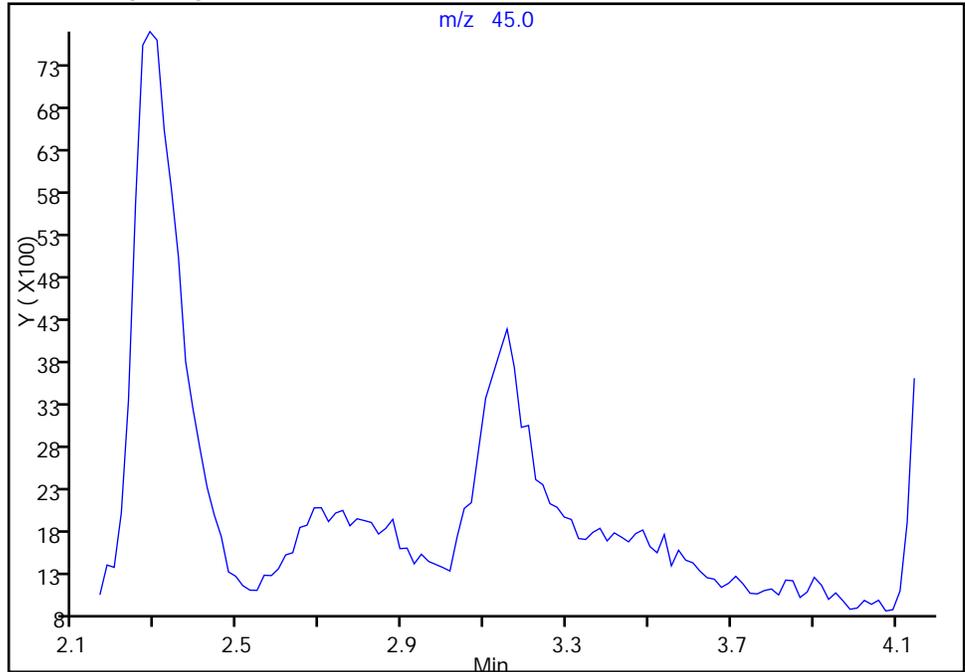
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8231.D
Injection Date: 02-Jun-2015 00:21:30 Instrument ID: VMS_Z
Lims ID: ICIS
Client ID:
Operator ID: bergerb ALS Bottle#: 13 Worklist Smp#: 19
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

47 Isopropyl alcohol, CAS: 67-63-0

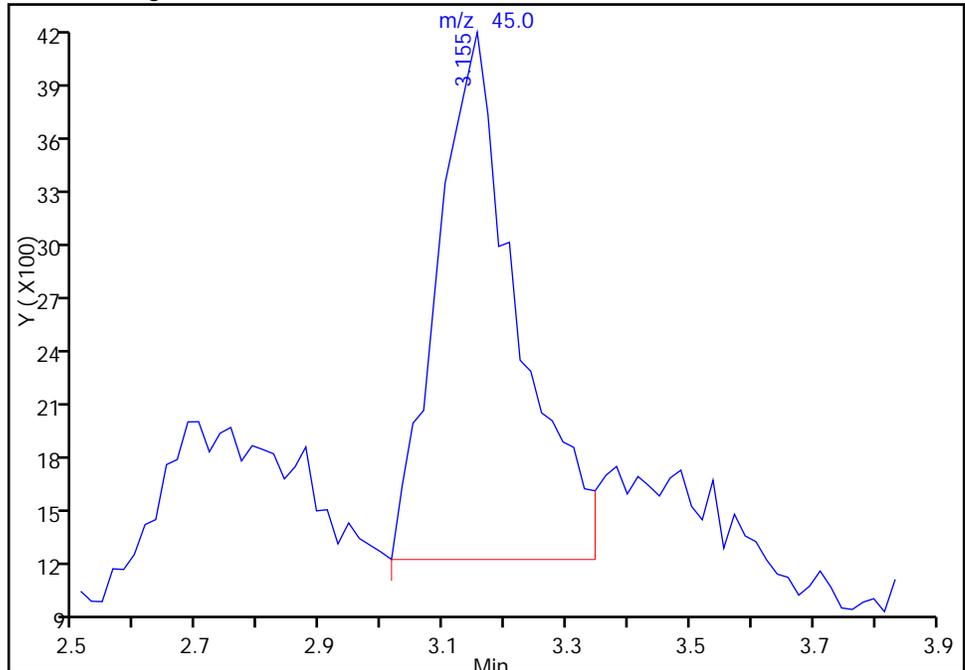
Not Detected
Expected RT: 3.15

Processing Integration Results



RT: 3.15
Area: 25584
Amount: 84.925064
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 02-Jun-2015 01:33:55
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

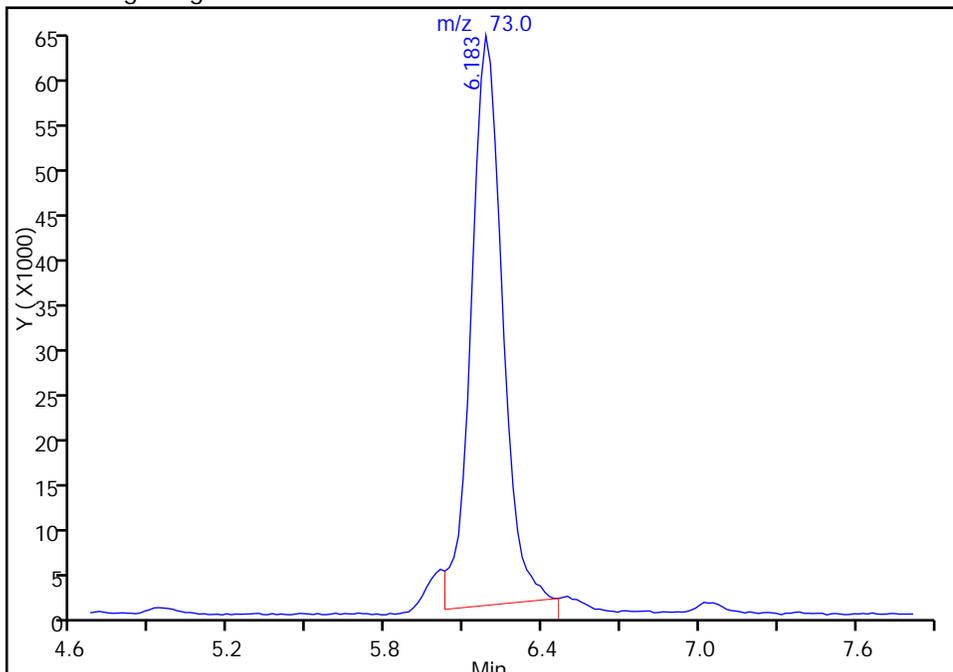
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8231.D
Injection Date: 02-Jun-2015 00:21:30 Instrument ID: VMS_Z
Lims ID: ICIS
Client ID:
Operator ID: bergerb ALS Bottle#: 13 Worklist Smp#: 19
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

83 Tert-amyl methyl ether, CAS: 994-05-8

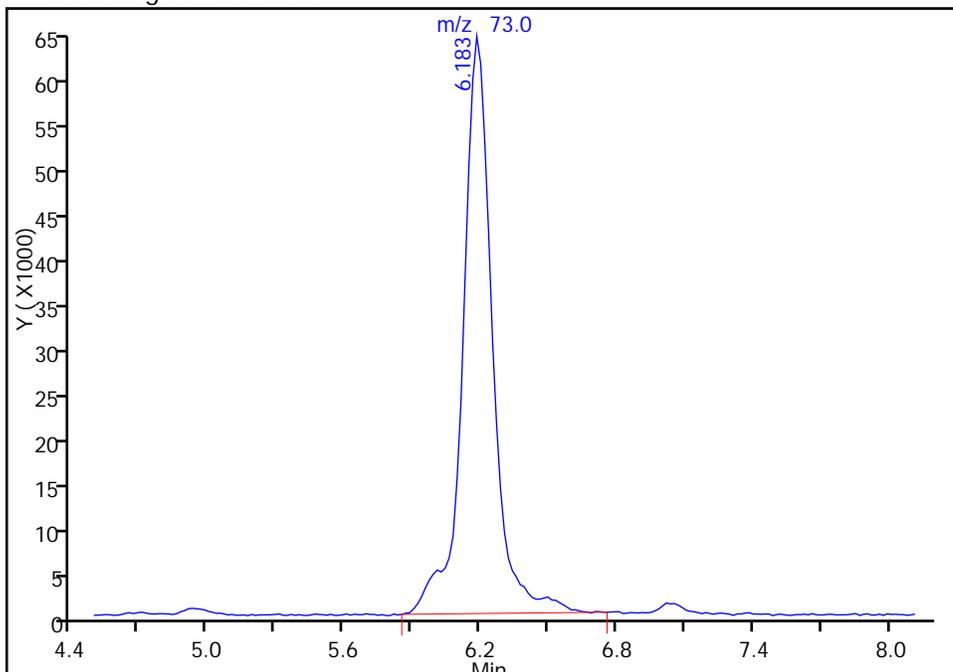
RT: 6.18
Area: 522177
Amount: 11.511252
Amount Units: ug/l

Processing Integration Results



RT: 6.18
Area: 579115
Amount: 12.316176
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 02-Jun-2015 01:33:55
Audit Action: Manually Integrated
Audit Reason: Baseline

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8232.D
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 02-Jun-2015 00:43:30 ALS Bottle#: 14 Worklist Smp#: 20
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ic
 Operator ID: bergerb Instrument ID: VMS_Z
 Sublist: chrom-AQ_VMSZ_8260*sub112
 Method: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\AQ_VMSZ_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 02-Jun-2015 02:33:12 Calib Date: 02-Jun-2015 01:06:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8233.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK021

First Level Reviewer: bergerb Date: 02-Jun-2015 01:30:24

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.484	3.468	0.016	91	158850	250.0	250.0	
* 2 Fluorobenzene	96	6.374	6.375	-0.001	98	892215	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.022	11.023	-0.001	87	218969	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.112	15.113	-0.001	96	349082	12.5	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.469	5.452	0.017	94	1233540	30.0	28.9	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	5.904	5.887	0.017	93	472892	30.0	29.2	
\$ 10 Toluene-d8 (Surr)	98	8.706	8.690	0.016	92	2074649	30.0	29.2	
\$ 11 4-Bromofluorobenzene (Surr	95	13.041	13.042	-0.001	89	1128051	30.0	28.5	
34 Ethylene oxide	43	2.283	2.284	-0.001	99	1969537	6000.0	6210.6	
39 Ethanol	45	2.701	2.702	-0.001	88	40345	1500.0	1503.4	
42 Propene oxide	58	2.858	2.859	-0.001	96	2179155	1500.0	1555.9	
47 Isopropyl alcohol	45	3.154	3.155	-0.001	21	94673	300.0	285.0	a
53 Acetonitrile	41	3.293	3.294	-0.001	99	137504	375.0	380.1	
60 Isopropyl ether	87	4.285	4.286	-0.001	98	605338	37.5	35.9	
63 2-Chloro-1,3-butadiene	53	4.303	4.303	0.000	88	930487	30.0	27.9	
64 Tert-butyl ethyl ether	59	4.720	4.721	-0.001	99	2126920	37.5	36.0	
69 Propionitrile	54	4.912	4.895	0.017	98	205255	375.0	399.7	
68 Ethyl acetate	43	4.929	4.930	-0.001	98	392170	NC	NC	
73 Methacrylonitrile	41	5.103	5.104	-0.001	91	1097152	300.0	304.8	
83 Tert-amyl methyl ether	73	6.182	6.183	-0.001	98	1792767	37.5	37.7	M
86 n-Butanol	56	6.792	6.793	-0.001	84	119933	750.0	799.9	
88 Ethyl acrylate	55	6.792	6.810	-0.018	26	20092	NC	NC	
91 Methyl methacrylate	100	7.384	7.384	0.000	90	179939	60.0	63.1	
95 2-Nitropropane	41	7.888	7.907	-0.019	96	86917	60.0	67.3	
106 Tetrahydrothiophene	60	10.029	10.030	-0.001	93	177163	30.0	31.0	
120 cis-1,4-Dichloro-2-butene	53	12.884	12.885	-0.001	0	90807	30.0	27.5	
135 1,2,3-Trimethylbenzene	105	15.269	15.270	-0.001	98	1993606	30.0	28.8	
140 1,3,5-Trichlorobenzene	180	17.201	17.202	-0.001	97	1144036	30.0	28.9	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MV-567649-D_00001	Amount Added: 1.00	Units: uL
MV-Supp A_00011	Amount Added: 15.00	Units: uL
MV-ARCH SS A_00047	Amount Added: 2.40	Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8232.D

Injection Date: 02-Jun-2015 00:43:30

Instrument ID: VMS_Z

Operator ID: bergerb

Lims ID: IC

Worklist Smp#: 20

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

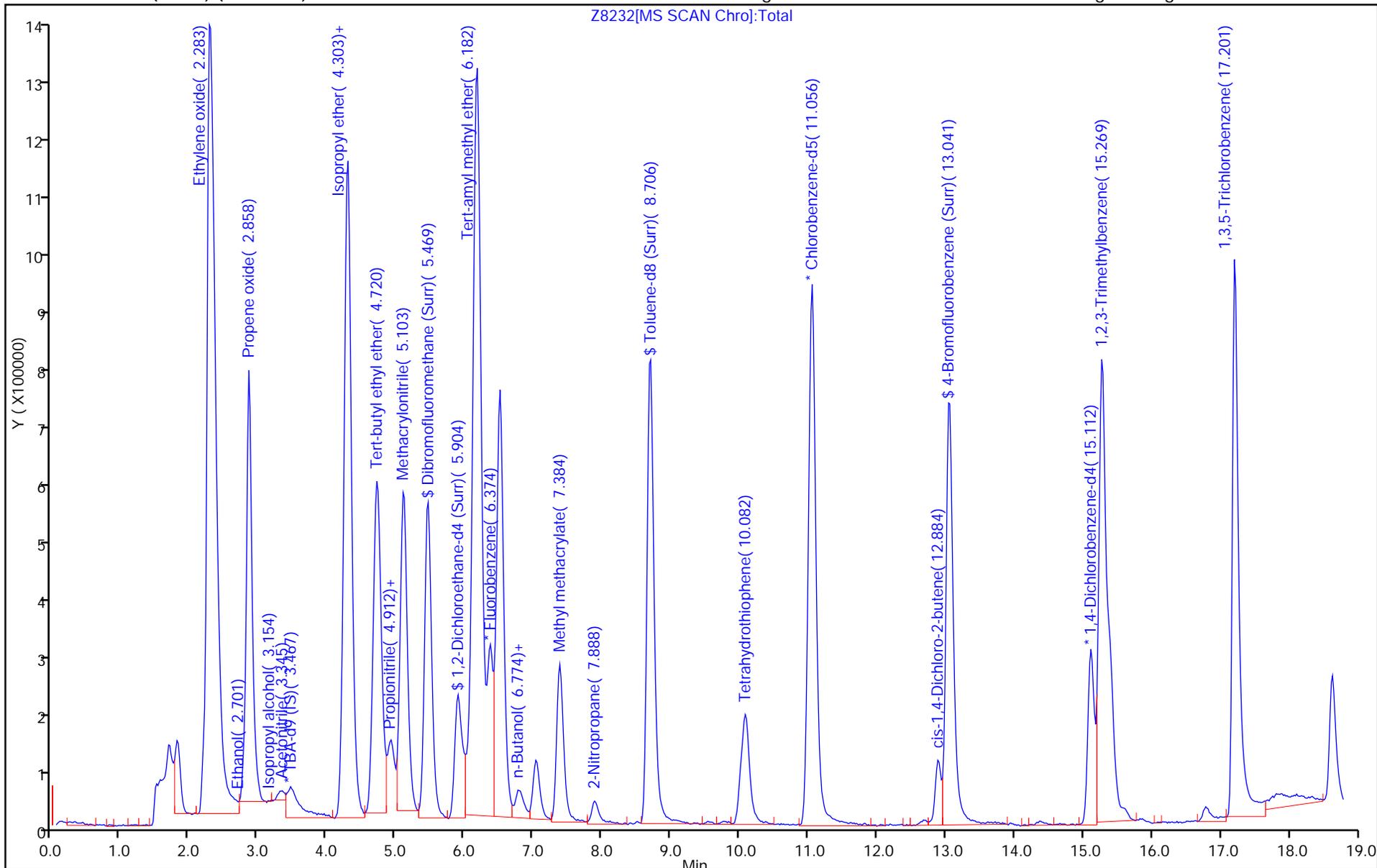
ALS Bottle#: 14

Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



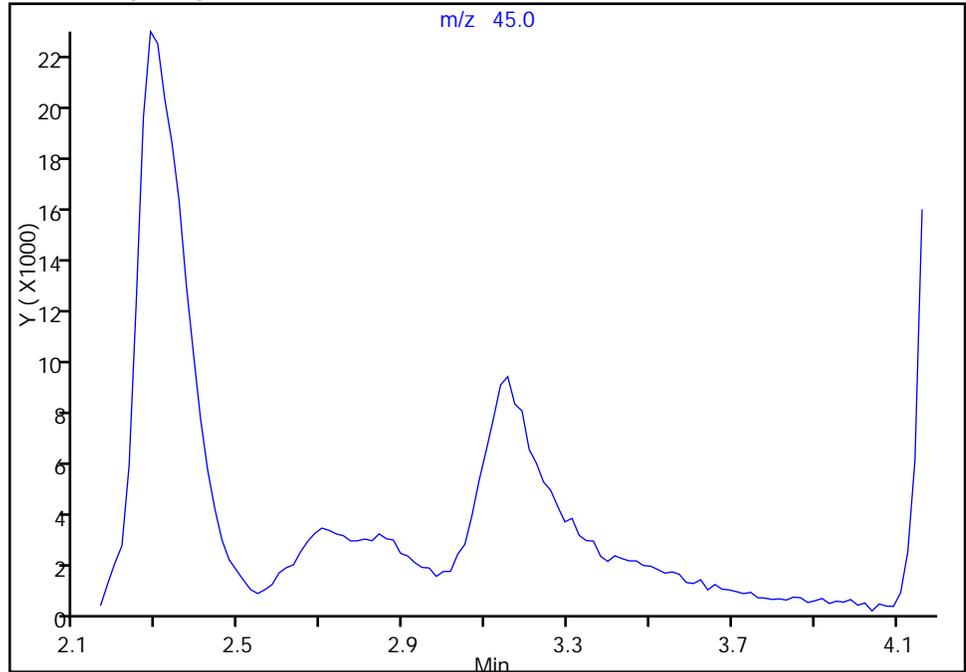
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8232.D
Injection Date: 02-Jun-2015 00:43:30 Instrument ID: VMS_Z
Lims ID: IC
Client ID:
Operator ID: bergerb ALS Bottle#: 14 Worklist Smp#: 20
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

47 Isopropyl alcohol, CAS: 67-63-0

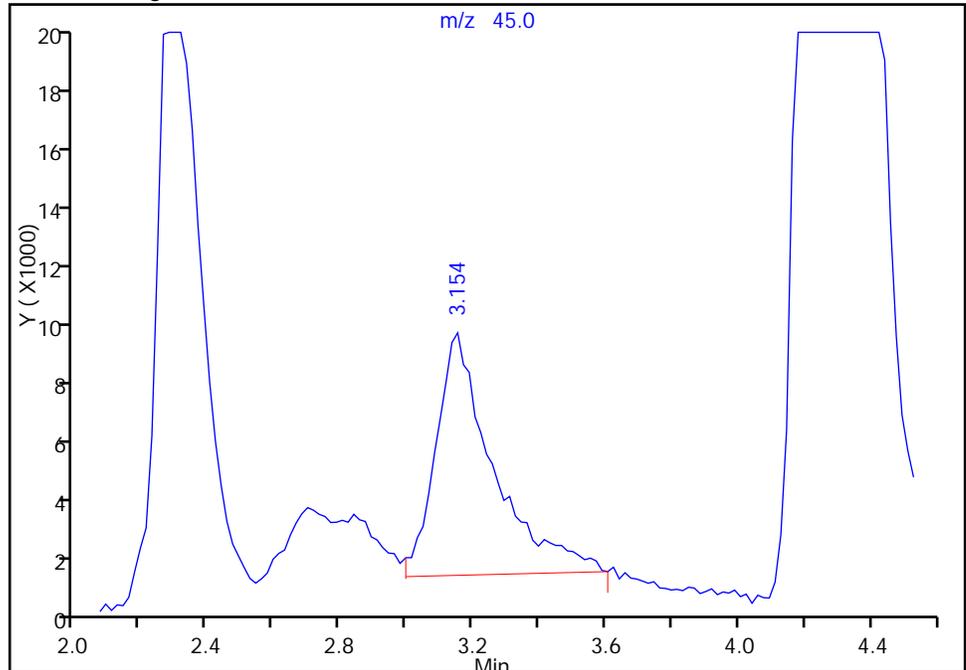
Not Detected
Expected RT: 3.15

Processing Integration Results



RT: 3.15
Area: 94673
Amount: 284.9865
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 02-Jun-2015 01:30:24
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

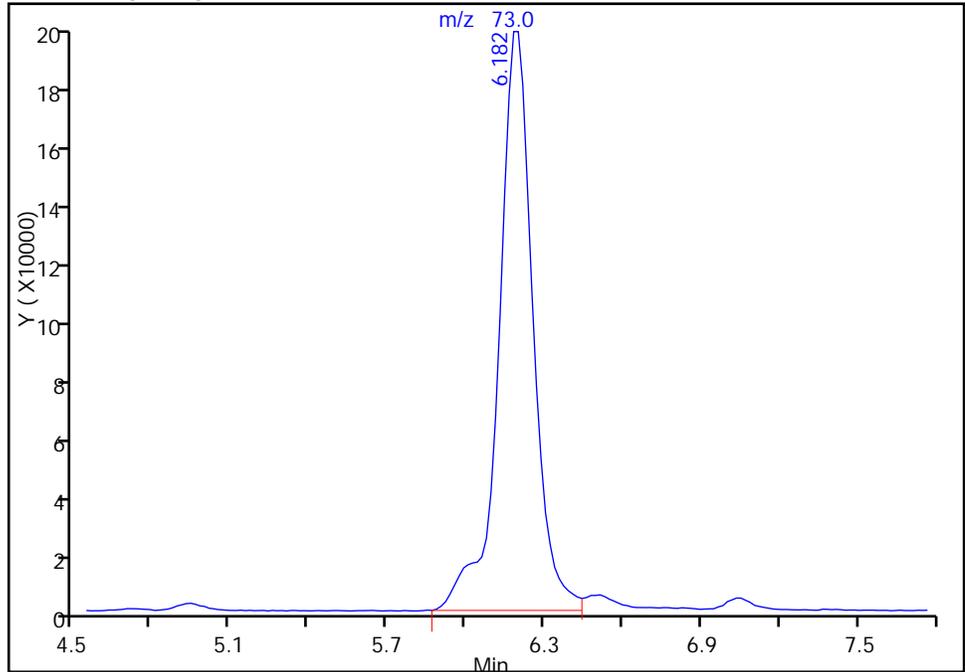
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8232.D
Injection Date: 02-Jun-2015 00:43:30 Instrument ID: VMS_Z
Lims ID: IC
Client ID:
Operator ID: bergerb ALS Bottle#: 14 Worklist Smp#: 20
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

83 Tert-amyl methyl ether, CAS: 994-05-8

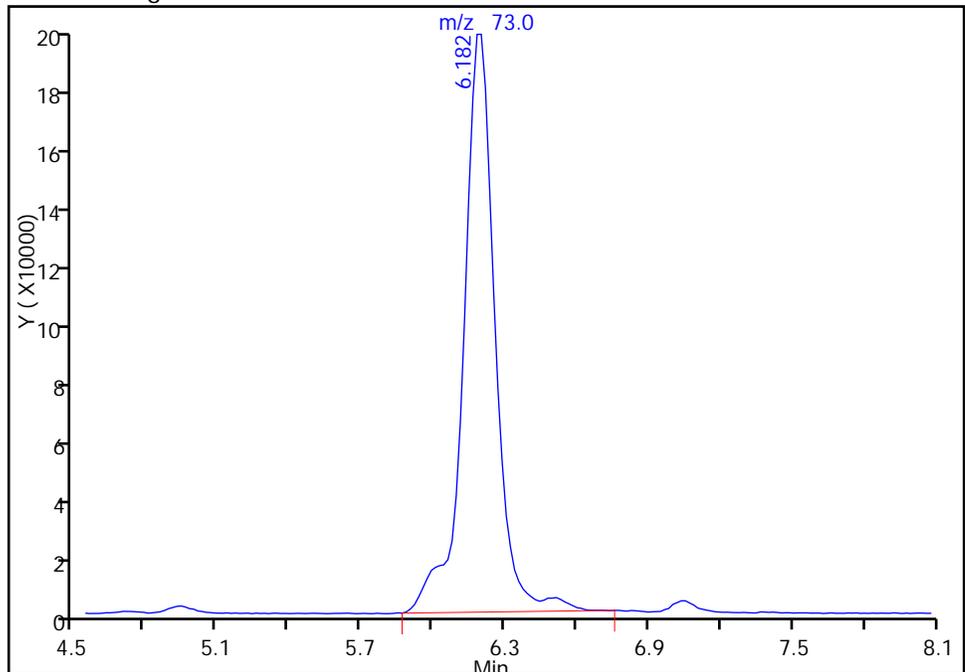
RT: 6.18
Area: 1771381
Amount: 38.691807
Amount Units: ug/l

Processing Integration Results



RT: 6.18
Area: 1792767
Amount: 37.699571
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 02-Jun-2015 01:33:23
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8233.D
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 7
 Inject. Date: 02-Jun-2015 01:06:30 ALS Bottle#: 15 Worklist Smp#: 21
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ic
 Operator ID: bergerb Instrument ID: VMS_Z
 Sublist: chrom-AQ_VMSZ_8260*sub112

Method: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\AQ_VMSZ_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 02-Jun-2015 02:33:06 Calib Date: 02-Jun-2015 01:06:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8233.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK021

First Level Reviewer: bergerb Date: 02-Jun-2015 01:32:23

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.484	3.468	0.016	95	146340	250.0	250.0	
* 2 Fluorobenzene	96	6.374	6.375	-0.001	98	870111	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.004	11.023	-0.019	86	213595	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.112	15.113	-0.001	96	327861	12.5	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.451	5.452	-0.001	94	2399574	60.0	57.7	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	5.886	5.887	-0.001	93	875729	60.0	55.4	
\$ 10 Toluene-d8 (Surr)	98	8.706	8.690	0.016	92	4100055	60.0	59.1	
\$ 11 4-Bromofluorobenzene (Surr	95	13.058	13.042	0.016	89	2185461	60.0	58.8	
34 Ethylene oxide	43	2.283	2.284	-0.001	99	3644140	12000	11783	
39 Ethanol	45	2.683	2.702	-0.019	92	76854	3000.0	3065.3	
42 Propene oxide	58	2.840	2.859	-0.019	96	3975771	3000.0	2910.7	
47 Isopropyl alcohol	45	3.153	3.155	-0.002	47	207460	600.0	628.3	a
53 Acetonitrile	41	3.275	3.294	-0.019	100	268353	750.0	743.0	
60 Isopropyl ether	87	4.285	4.286	-0.001	99	1143693	75.0	69.6	
63 2-Chloro-1,3-butadiene	53	4.302	4.303	-0.001	88	1828467	60.0	56.1	
64 Tert-butyl ethyl ether	59	4.720	4.721	-0.001	99	3925452	75.0	68.2	
69 Propionitrile	54	4.911	4.895	0.016	98	383945	750.0	766.7	
68 Ethyl acetate	43	4.929	4.930	-0.001	98	675682	NC	NC	
73 Methacrylonitrile	41	5.103	5.104	-0.001	91	2028469	600.0	577.8	
83 Tert-amyl methyl ether	73	6.182	6.183	-0.001	98	3266290	75.0	70.4	M
86 n-Butanol	56	6.791	6.793	-0.002	88	219681	1500.0	1502.4	
88 Ethyl acrylate	55	6.791	6.810	-0.019	35	31359	NC	NC	
91 Methyl methacrylate	100	7.383	7.384	-0.001	89	325155	120.0	116.9	
95 2-Nitropropane	41	7.888	7.907	-0.019	97	145614	120.0	115.7	
106 Tetrahydrothiophene	60	10.029	10.030	-0.001	94	310281	60.0	55.6	
120 cis-1,4-Dichloro-2-butene	53	12.884	12.885	-0.001	0	165805	60.0	53.5	
135 1,2,3-Trimethylbenzene	105	15.269	15.270	-0.001	98	3842747	60.0	59.1	
140 1,3,5-Trichlorobenzene	180	17.201	17.202	-0.001	97	2145008	60.0	57.7	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MV-567649-D_00001	Amount Added: 1.00	Units: uL
MV-Supp A_00011	Amount Added: 30.00	Units: uL
MV-ARCH SS A_00047	Amount Added: 4.80	Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8233.D

Injection Date: 02-Jun-2015 01:06:30

Instrument ID: VMS_Z

Operator ID: bergerb

Lims ID: IC

Worklist Smp#: 21

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

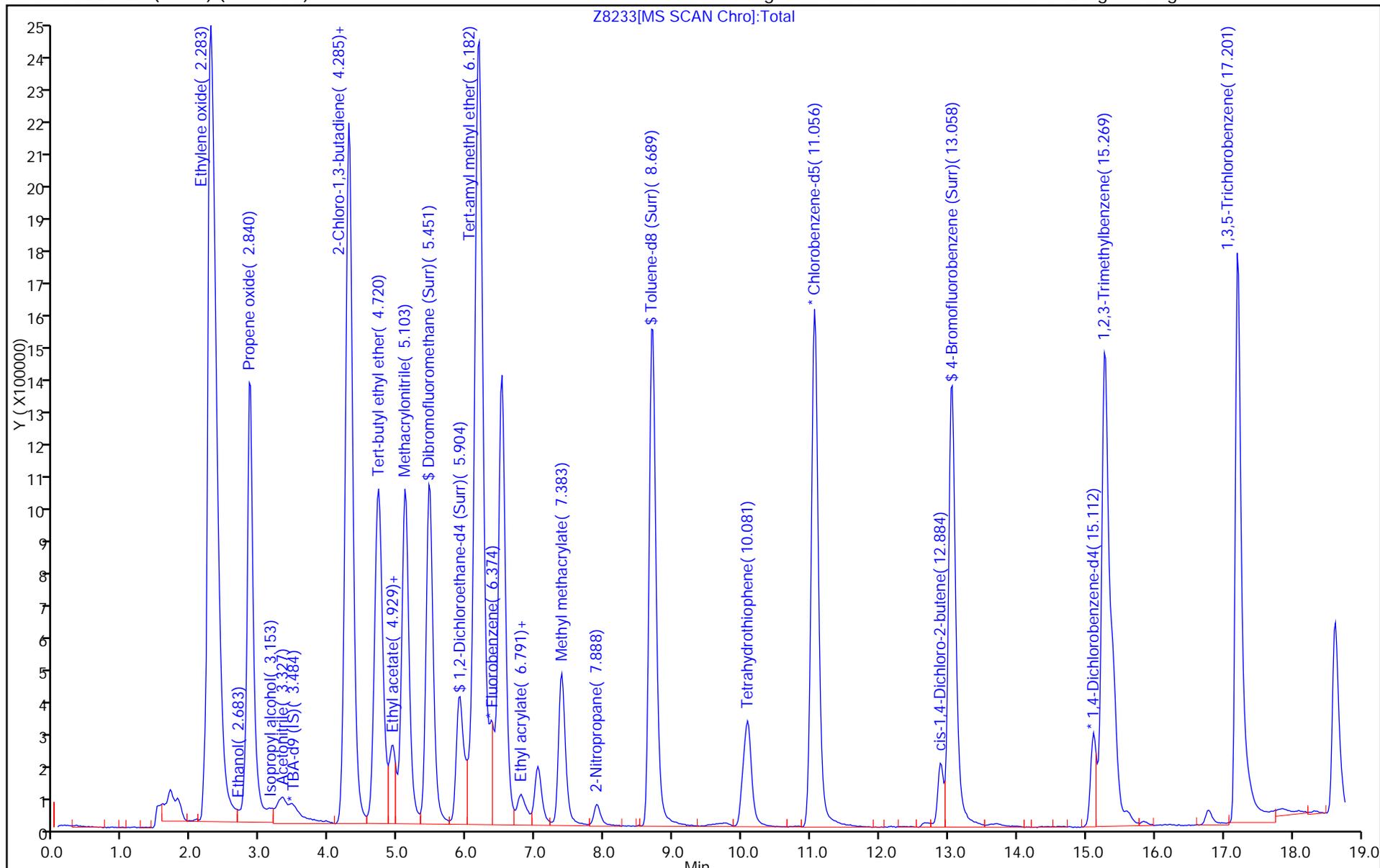
ALS Bottle#: 15

Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



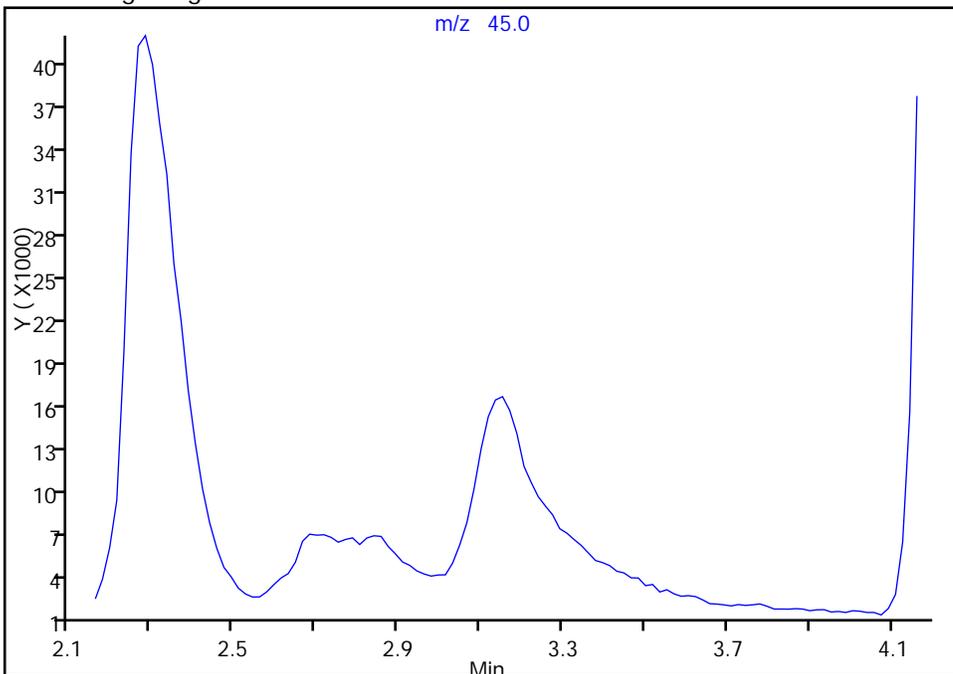
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8233.D
Injection Date: 02-Jun-2015 01:06:30 Instrument ID: VMS_Z
Lims ID: IC
Client ID:
Operator ID: bergerb ALS Bottle#: 15 Worklist Smp#: 21
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

47 Isopropyl alcohol, CAS: 67-63-0

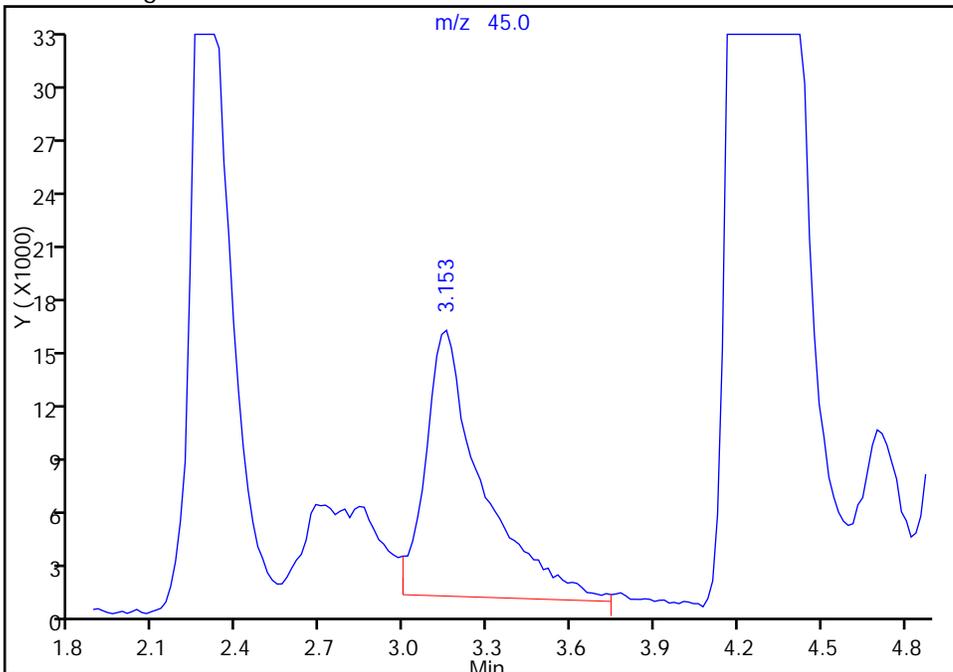
Not Detected
Expected RT: 3.15

Processing Integration Results



RT: 3.15
Area: 207460
Amount: 628.2876
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 02-Jun-2015 01:32:23
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

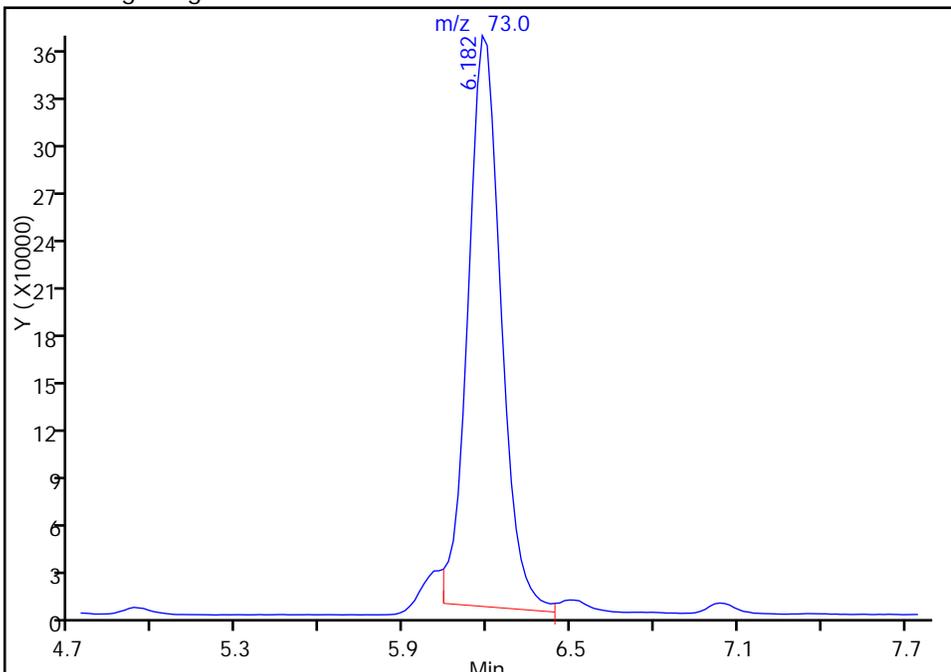
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8233.D
Injection Date: 02-Jun-2015 01:06:30 Instrument ID: VMS_Z
Lims ID: IC
Client ID:
Operator ID: bergerb ALS Bottle#: 15 Worklist Smp#: 21
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

83 Tert-amyl methyl ether, CAS: 994-05-8

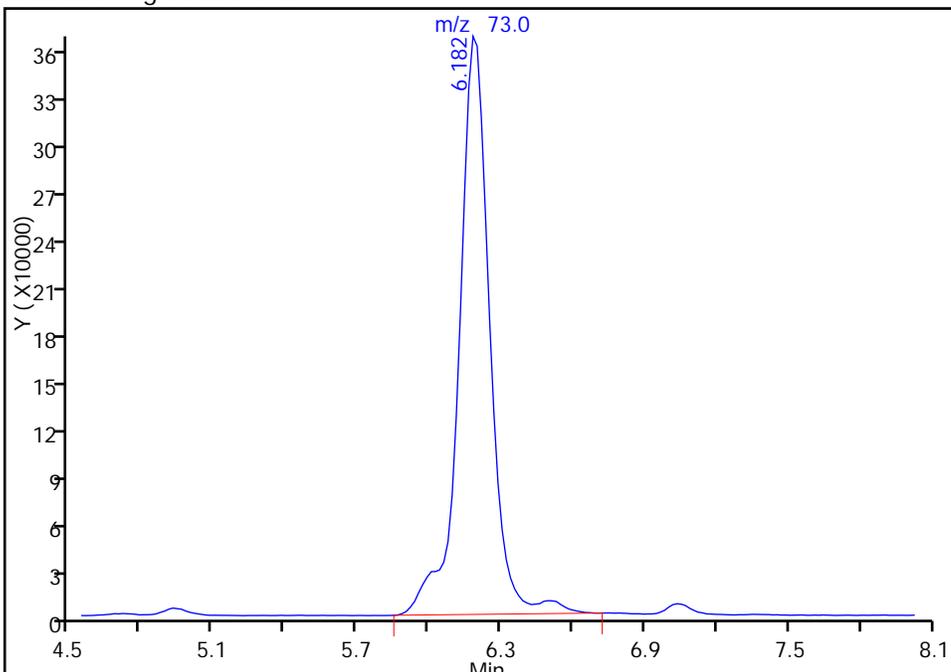
RT: 6.18
Area: 2981428
Amount: 67.737293
Amount Units: ug/l

Processing Integration Results



RT: 6.18
Area: 3266290
Amount: 70.430725
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 02-Jun-2015 01:32:23
Audit Action: Manually Integrated
Audit Reason: Baseline

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Lab Sample ID: ICV 280-279265/22 Calibration Date: 05/28/2015 02:55
 Instrument ID: VMS_H Calib Start Date: 05/28/2015 00:18
 GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 05/28/2015 05:10
 Lab File ID: H2956.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Lin1		0.6614		11.0	10.0	9.7	20.0
Chloromethane	Ave	0.3892	0.4179	0.1000	10.7	10.0	7.4	20.0
Vinyl chloride	Ave	0.3807	0.4032		10.6	10.0	5.9	20.0
Bromomethane	Ave	0.3159	0.3404		10.8	10.0	7.8	20.0
Chloroethane	Ave	0.2314	0.2477		10.7	10.0	7.0	20.0
Dichlorofluoromethane	Ave	0.8394	0.8955		10.7	10.0	6.7	20.0
Trichlorofluoromethane	Ave	0.7509	0.8161		10.9	10.0	8.7	20.0
Ethyl ether	Ave	0.1983	0.1962		9.89	10.0	-1.1	20.0
Acrolein	Ave	0.0137	0.0124		90.8	100	-9.2	20.0
1,1-Dichloroethene	Ave	0.3733	0.3787		10.1	10.0	1.4	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.5088	0.5309		10.4	10.0	4.3	20.0
Acetone	Ave	0.0389	0.0370		38.0	40.0	-5.0	20.0
Iodomethane	Ave	0.8401	0.8818		10.5	10.0	5.0	20.0
Carbon disulfide	Ave	1.439	1.424		9.90	10.0	-1.0	20.0
3-Chloro-1-propene	Ave	0.8666	0.7919		9.14	10.0	-8.6	20.0
Methyl acetate	Ave	0.1259	0.1246		49.5	50.0	-1.1	20.0
Methylene Chloride	Lin2		0.3442		10.4	10.0	4.2	20.0
tert-Butyl alcohol	Lin1		1.326		109	100	9.5	20.0
Acrylonitrile	Ave	0.0326	0.0315		96.7	100	-3.3	20.0
Methyl tert-butyl ether	Ave	0.7116	0.6949		9.76	10.0	-2.4	20.0
trans-1,2-Dichloroethene	Ave	0.4200	0.4389		10.5	10.0	4.5	20.0
Hexane	Ave	3.353	3.719		11.1	10.0	10.9	20.0
1,1-Dichloroethane	Ave	0.8867	0.8882	0.1000	10.0	10.0	0.2	20.0
Vinyl acetate	Ave	0.5491	0.5334		19.4	20.0	-2.9	20.0
2,2-Dichloropropane	Lin2		0.7691		9.75	10.0	-2.5	20.0
2-Butanone (MEK)	Ave	0.0717	0.0732		40.8	40.0	2.1	20.0
cis-1,2-Dichloroethene	Ave	0.4232	0.4285		10.1	10.0	1.3	20.0
sec-Butyl Alcohol	Ave	1.790	1.661		278	300	-7.2	20.0
Bromochloromethane	Ave	0.1857	0.1882		10.1	10.0	1.3	20.0
Tetrahydrofuran	Ave	0.0516	0.0517		20.0	20.0	0.0	20.0
Chloroform	Ave	0.8281	0.8335		10.1	10.0	0.7	20.0
1,1,1-Trichloroethane	Ave	0.7908	0.8102		10.2	10.0	2.5	20.0
Cyclohexane	Ave	0.8724	0.8797		10.1	10.0	0.8	20.0
1,1-Dichloropropene	Ave	0.7089	0.7479		10.6	10.0	5.5	20.0
Carbon tetrachloride	Ave	0.7352	0.7854		10.7	10.0	6.8	20.0
Isobutyl alcohol	Ave	0.6270	0.6714		268	250	7.1	20.0
Benzene	Ave	1.309	1.346		10.3	10.0	2.8	20.0
1,2-Dichloroethane	Ave	0.3956	0.3803		9.61	10.0	-3.9	20.0
Trichloroethene	Ave	0.5325	0.5702		10.7	10.0	7.1	20.0
2-Pentanone	Ave	0.1989	0.1854		37.3	40.0	-6.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Lab Sample ID: ICV 280-279265/22 Calibration Date: 05/28/2015 02:55
 Instrument ID: VMS_H Calib Start Date: 05/28/2015 00:18
 GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 05/28/2015 05:10
 Lab File ID: H2956.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.7772	0.8206		10.6	10.0	5.6	20.0
1,2-Dichloropropane	Ave	0.5231	0.5086		9.72	10.0	-2.8	20.0
Dibromomethane	Ave	0.2607	0.2478		9.50	10.0	-5.0	20.0
1,4-Dioxane	Lin2		0.0014		191	200	-4.6	20.0
Bromodichloromethane	Ave	0.7613	0.7458		9.80	10.0	-2.0	20.0
2-Chloroethyl vinyl ether	Ave	0.0935	0.0811		8.68	10.0	-13.2	20.0
cis-1,3-Dichloropropene	Ave	2.945	3.205		10.9	10.0	8.8	20.0
4-Methyl-2-pentanone (MIBK)	Lin1		0.2571		38.7	40.0	-3.3	20.0
Toluene	Ave	1.501	1.516		10.1	10.0	1.0	20.0
trans-1,3-Dichloropropene	Ave	0.4794	0.5122		10.7	10.0	6.8	20.0
Ethyl methacrylate	Ave	1.808	1.898		10.5	10.0	5.0	20.0
1,1,2-Trichloroethane	Ave	0.3008	0.2820		9.37	10.0	-6.3	20.0
Tetrachloroethene	Ave	2.034	2.266		11.1	10.0	11.5	20.0
1,3-Dichloropropane	Ave	2.292	2.264		9.88	10.0	-1.2	20.0
2-Hexanone	Lin1		0.8226		39.7	40.0	-0.8	20.0
Chlorodibromomethane	Ave	2.231	2.349		10.5	10.0	5.3	20.0
1,2-Dibromoethane	Ave	1.573	1.645		10.5	10.0	4.6	20.0
1-Chlorohexane	Ave	3.436	3.755		10.9	10.0	9.3	20.0
Chlorobenzene	Ave	4.483	4.770	0.3000	10.6	10.0	6.4	20.0
1,1,1,2-Tetrachloroethane	Ave	2.164	2.290		10.6	10.0	5.8	20.0
Ethylbenzene	Ave	2.285	2.484		10.9	10.0	8.7	20.0
m-Xylene & p-Xylene	Ave	3.107	3.420		11.0	10.0	10.1	20.0
o-Xylene	Ave	2.726	2.984		10.9	10.0	9.5	20.0
Styrene	Ave	4.408	4.616		10.5	10.0	4.7	20.0
Bromoform	Ave	1.204	1.292	0.1000	10.7	10.0	7.3	20.0
Isopropylbenzene	Ave	5.356	5.573		10.4	10.0	4.0	20.0
Cyclohexanone	Lin1		0.0294		425	400	6.2	20.0
1,1,2,2-Tetrachloroethane	Ave	1.115	1.055	0.3000	9.47	10.0	-5.3	20.0
Bromobenzene	Ave	1.235	1.270		10.3	10.0	2.8	20.0
1,2,3-Trichloropropane	Ave	0.2607	0.2499		9.59	10.0	-4.1	20.0
trans-1,4-Dichloro-2-buten e	Ave	0.2926	0.2705		9.25	10.0	-7.5	20.0
N-Propylbenzene	Ave	1.311	1.338		10.2	10.0	2.0	20.0
2-Chlorotoluene	Ave	1.016	1.027		10.1	10.0	1.1	20.0
1,3,5-Trimethylbenzene	Ave	4.052	4.149		10.2	10.0	2.4	20.0
4-Chlorotoluene	Ave	1.313	1.422		10.8	10.0	8.3	20.0
tert-Butylbenzene	Ave	4.395	4.503		10.2	10.0	2.5	20.0
1,2,4-Trimethylbenzene	Ave	3.849	3.915		10.2	10.0	1.7	20.0
sec-Butylbenzene	Ave	1.160	1.242		10.7	10.0	7.0	20.0
1,3-Dichlorobenzene	Ave	1.876	1.845		9.84	10.0	-1.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Lab Sample ID: ICV 280-279265/22 Calibration Date: 05/28/2015 02:55
 Instrument ID: VMS_H Calib Start Date: 05/28/2015 00:18
 GC Column: DB-624 (75.53) ID: 0.53 (mm) Calib End Date: 05/28/2015 05:10
 Lab File ID: H2956.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
p-Isopropyltoluene	Ave	4.989	5.302		10.6	10.0	6.3	20.0
1,4-Dichlorobenzene	Ave	2.898	3.084		10.6	10.0	6.4	20.0
n-Butylbenzene	Ave	5.241	5.493		10.5	10.0	4.8	20.0
1,2-Dichlorobenzene	Ave	1.969	2.010		10.2	10.0	2.1	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1839	0.1990		10.8	10.0	8.2	20.0
1,2,4-Trichlorobenzene	Ave	1.323	1.501		11.3	10.0	13.5	20.0
Hexachlorobutadiene	Ave	1.379	1.597		11.6	10.0	15.9	20.0
Naphthalene	Ave	1.505	1.719		11.4	10.0	14.2	20.0
1,2,3-Trichlorobenzene	Ave	1.042	1.233		11.8	10.0	18.4	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2956.D
 Lims ID: icv
 Client ID:
 Sample Type: ICV
 Inject. Date: 28-May-2015 02:55:30 ALS Bottle#: 10 Worklist Smp#: 22
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: icv
 Operator ID: BERGERB Instrument ID: VMS_H
 Sublist:
 Method: \\Denchrom\ChromData\VMS_H\20150528-35452.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 02-Jun-2015 23:04:11 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK012

First Level Reviewer: wickhamt

Date: 28-May-2015 06:38:42

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.971	3.975	-0.004	6	197253	250.0	250.0	
* 2 Fluorobenzene	96	6.774	6.760	0.014	93	1091127	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.109	11.113	-0.005	90	229810	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.120	14.107	0.013	77	395522	12.5	12.5	
28 Dichlorodifluoromethane	85	2.160	2.164	-0.004	98	577293	10.0	11.0	
30 Chloromethane	50	2.264	2.269	-0.005	87	364816	10.0	10.7	
31 Butadiene	54	2.369	2.373	-0.004	0	281037	NC	NC	
32 Vinyl chloride	62	2.386	2.390	-0.004	88	351948	10.0	10.6	
35 Bromomethane	94	2.682	2.669	0.013	83	297140	10.0	10.8	
36 Chloroethane	64	2.752	2.756	-0.004	86	216182	10.0	10.7	
37 Dichlorofluoromethane	67	2.926	2.930	-0.004	97	781654	10.0	10.7	
38 Trichlorofluoromethane	101	2.978	2.982	-0.004	98	712403	10.0	10.9	
40 Ethyl ether	59	3.222	3.226	-0.004	87	171255	10.0	9.89	
44 Acrolein	56	3.361	3.365	-0.004	90	108328	100.0	90.8	
45 1,1-Dichloroethene	96	3.466	3.470	-0.004	94	330565	10.0	10.1	
46 1,1,2-Trichloro-1,2,2-trif	151	3.501	3.487	0.014	91	463410	10.0	10.4	
47 Acetone	43	3.501	3.505	-0.004	19	129090	40.0	38.0	
48 Iodomethane	142	3.640	3.644	-0.004	98	769728	10.0	10.5	
50 Carbon disulfide	76	3.727	3.731	-0.004	99	1243328	10.0	9.90	
53 Methyl acetate	43	3.814	3.818	-0.004	67	543761	50.0	49.5	
52 3-Chloro-1-propene	41	3.814	3.818	-0.004	83	691278	10.0	9.14	
54 Methylene Chloride	84	3.953	3.957	-0.004	93	300425	10.0	10.4	
55 2-Methyl-2-propanol	59	4.075	4.062	0.013	6	104613	100.0	109.5	
57 Acrylonitrile	53	4.197	4.201	-0.004	74	275029	100.0	96.7	
56 Methyl tert-butyl ether	73	4.232	4.236	-0.004	73	606538	10.0	9.76	
58 trans-1,2-Dichloroethene	96	4.232	4.236	-0.004	91	383133	10.0	10.5	
59 Hexane	57	4.510	4.514	-0.004	85	683726	10.0	11.1	
60 1,1-Dichloroethane	63	4.684	4.688	-0.004	96	775301	10.0	10.0	
61 Vinyl acetate	43	4.719	4.723	-0.004	89	931188	20.0	19.4	
65 cis-1,2-Dichloroethene	96	5.363	5.367	-0.004	79	374049	10.0	10.1	
67 2-Butanone (MEK)	43	5.363	5.367	-0.004	46	255616	40.0	40.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
66 2,2-Dichloropropane	77	5.363	5.385	-0.022	66	671373	10.0	9.75	
71 sec-Butyl Alcohol	45	5.590	5.576	0.014	72	393054	300.0	278.3	
73 Chlorobromomethane	128	5.642	5.663	-0.021	87	164300	10.0	10.1	
74 Tetrahydrofuran	42	5.712	5.716	-0.004	40	90174	20.0	20.0	
75 Chloroform	83	5.729	5.733	-0.004	89	727578	10.0	10.1	
76 1,1,1-Trichloroethane	97	5.973	5.977	-0.004	88	707229	10.0	10.2	
77 Cyclohexane	56	6.042	6.046	-0.004	93	767893	10.0	10.1	
78 1,1-Dichloropropene	75	6.164	6.168	-0.004	82	652880	10.0	10.6	
79 Carbon tetrachloride	117	6.182	6.186	-0.004	75	685611	10.0	10.7	
80 Isobutyl alcohol	41	6.303	6.290	0.013	54	132428	250.0	267.7	
81 Benzene	78	6.425	6.429	-0.004	94	1175278	10.0	10.3	
82 1,2-Dichloroethane	62	6.443	6.447	-0.004	48	331972	10.0	9.61	
84 n-Heptane	43	6.721	6.725	-0.004	97	1053222	10.0	10.4	
86 Trichloroethene	95	7.244	7.230	0.014	94	497697	10.0	10.7	
88 2-Pentanone	43	7.470	7.474	-0.004	79	647409	40.0	37.3	
89 Methylcyclohexane	55	7.505	7.491	0.014	78	716261	10.0	10.6	
90 1,2-Dichloropropane	63	7.540	7.526	0.014	78	443971	10.0	9.72	
92 Dibromomethane	93	7.696	7.700	-0.004	85	216284	10.0	9.50	
93 1,4-Dioxane	88	7.714	7.718	-0.004	0	24502	200.0	190.8	
94 Dichlorobromomethane	83	7.905	7.892	0.013	95	651032	10.0	9.80	
96 2-Chloroethyl vinyl ether	63	8.288	8.292	-0.004	58	70824	10.0	8.68	
97 cis-1,3-Dichloropropene	75	8.497	8.501	-0.004	80	589287	10.0	10.9	
98 4-Methyl-2-pentanone (MIBK)	43	8.723	8.710	0.013	91	897783	40.0	38.7	
99 Toluene	91	8.967	8.971	-0.004	93	1323699	10.0	10.1	
100 trans-1,3-Dichloropropene	75	9.280	9.285	-0.005	88	447059	10.0	10.7	
101 Ethyl methacrylate	69	9.420	9.406	0.014	59	348869	10.0	10.5	
102 1,1,2-Trichloroethane	97	9.542	9.546	-0.004	88	246132	10.0	9.37	
103 Tetrachloroethene	164	9.768	9.772	-0.004	96	416685	10.0	11.1	
104 1,3-Dichloropropane	76	9.803	9.789	0.014	94	416226	10.0	9.88	
105 2-Hexanone	43	9.925	9.929	-0.004	93	604939	40.0	39.7	
108 Chlorodibromomethane	129	10.151	10.155	-0.004	89	431892	10.0	10.5	
109 Ethylene Dibromide	107	10.342	10.329	0.013	94	302419	10.0	10.5	
110 1-Chlorohexane	91	11.126	11.113	0.013	82	690407	10.0	10.9	
111 Chlorobenzene	112	11.161	11.147	0.014	87	876884	10.0	10.6	
112 1,1,1,2-Tetrachloroethane	131	11.283	11.287	-0.004	79	421001	10.0	10.6	
113 Ethylbenzene	106	11.317	11.322	-0.005	76	456691	10.0	10.9	
114 m-Xylene & p-Xylene	106	11.509	11.496	0.013	98	628758	10.0	11.0	
115 o-Xylene	106	12.066	12.070	-0.004	92	548512	10.0	10.9	
116 Styrene	104	12.101	12.088	0.013	85	848596	10.0	10.5	
117 Bromoform	173	12.345	12.349	-0.004	92	237490	10.0	10.7	
118 Isopropylbenzene	105	12.571	12.558	0.013	67	1763369	10.0	10.4	
120 Cyclohexanone	55	12.693	12.697	-0.004	61	216170	400.0	424.9	
122 Bromobenzene	156	12.954	12.941	0.013	84	401753	10.0	10.3	
121 1,1,2,2-Tetrachloroethane	83	12.954	12.958	-0.004	62	333933	10.0	9.47	
123 1,2,3-Trichloropropane	110	13.006	12.993	0.013	69	79071	10.0	9.59	
124 trans-1,4-Dichloro-2-buten	53	13.024	13.028	-0.004	47	85600	10.0	9.25	
125 N-Propylbenzene	120	13.076	13.080	-0.004	86	423302	10.0	10.2	
126 2-Chlorotoluene	126	13.180	13.184	-0.004	22	324884	10.0	10.1	
127 1,3,5-Trimethylbenzene	105	13.302	13.289	0.013	74	1312720	10.0	10.2	
128 4-Chlorotoluene	126	13.320	13.306	0.014	99	449941	10.0	10.8	
129 tert-Butylbenzene	119	13.685	13.672	0.013	92	1424979	10.0	10.2	
130 1,2,4-Trimethylbenzene	105	13.737	13.724	0.013	93	1238750	10.0	10.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
131 sec-Butylbenzene	134	13.929	13.916	0.013	79	392936	10.0	10.7	
132 1,3-Dichlorobenzene	146	14.051	14.037	0.014	78	583912	10.0	9.84	
133 4-Isopropyltoluene	119	14.086	14.072	0.014	92	1677698	10.0	10.6	
134 1,4-Dichlorobenzene	146	14.138	14.142	-0.004	81	975875	10.0	10.6	
137 n-Butylbenzene	91	14.521	14.507	0.014	97	1738215	10.0	10.5	
138 1,2-Dichlorobenzene	146	14.538	14.542	-0.004	70	636053	10.0	10.2	
139 1,2-Dibromo-3-Chloropropan	157	15.322	15.326	-0.004	76	62954	10.0	10.8	
141 1,2,4-Trichlorobenzene	180	16.088	16.074	0.014	94	475060	10.0	11.3	a
142 Hexachlorobutadiene	225	16.227	16.231	-0.004	96	505473	10.0	11.6	
143 Naphthalene	128	16.314	16.301	0.013	87	543969	10.0	11.4	
144 1,2,3-Trichlorobenzene	180	16.540	16.527	0.013	95	390166	10.0	11.8	a
S 151 1,2-Dichloroethene, Total	96				0		20.0	20.6	
S 149 1,2-Dichloroethene, Total	1				0		20.0	20.6	
S 150 Xylenes, Total	106				0		20.0	22.0	
S 148 1,3-Dichloropropene, Total	1				0		20.0	21.6	
S 145 Trihalomethanes, Total	1				0		40.0	41.1	
S 146 Xylenes, Total (URS)	1				0		20.0	22.0	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

a - User Assigned ID

Reagents:

MV-568718-D_00002	Amount Added: 1.00	Units: uL
MV-Main B_00009	Amount Added: 5.00	Units: uL
MV-Gas/Ket B_00017	Amount Added: 5.00	Units: uL
MV-SS 2-Cleve_00020	Amount Added: 5.00	Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2956.D

Injection Date: 28-May-2015 02:55:30

Instrument ID: VMS_H

Operator ID: BERGERB

Lims ID: icv

Worklist Smp#: 22

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

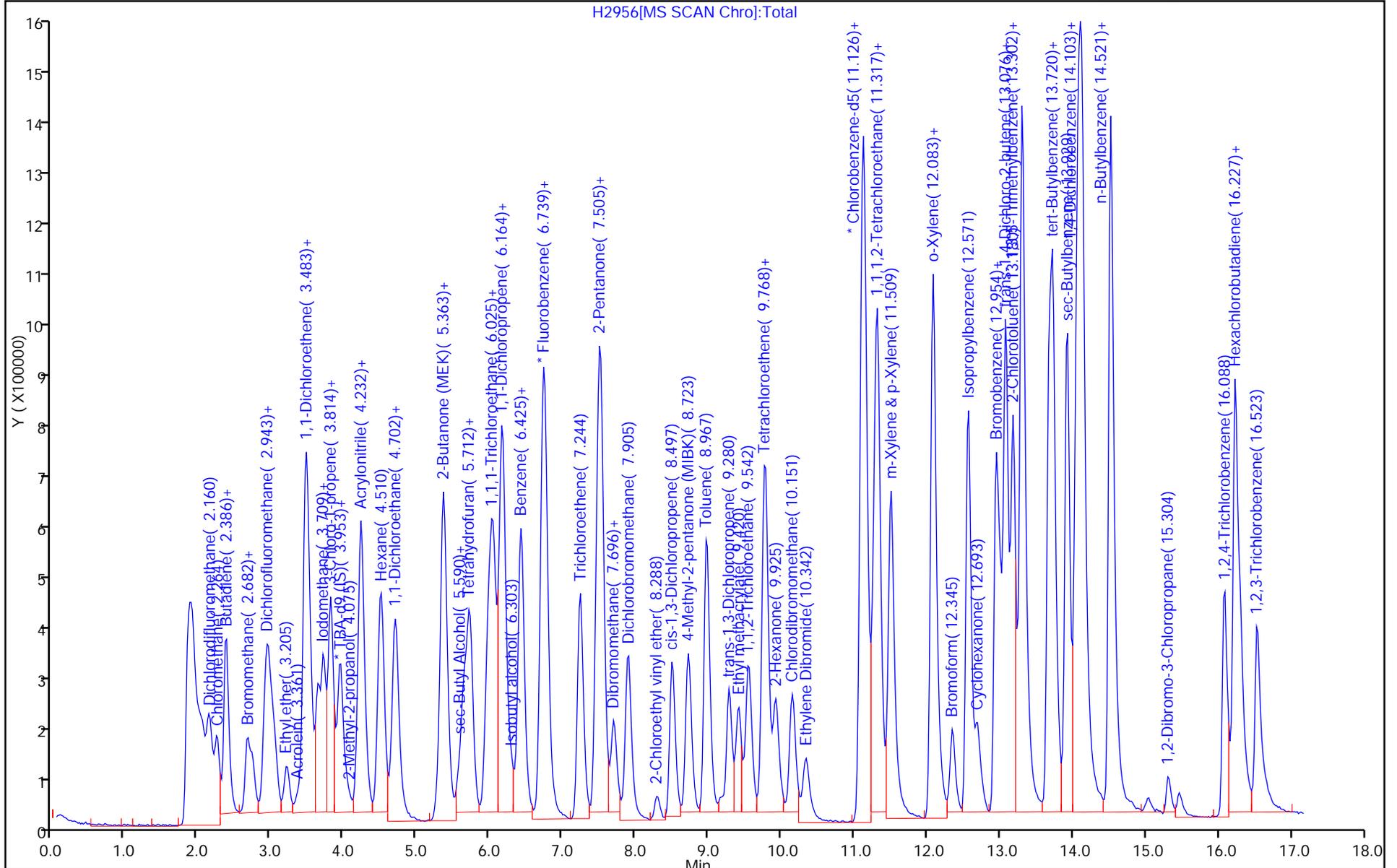
ALS Bottle#: 10

Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



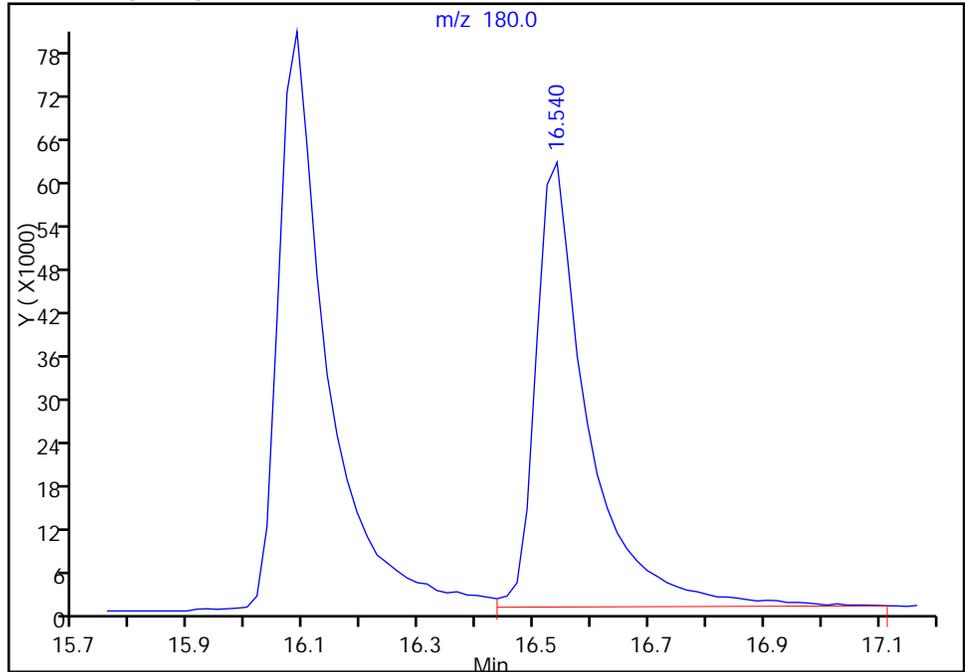
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2956.D
 Injection Date: 28-May-2015 02:55:30 Instrument ID: VMS_H
 Lims ID: icv
 Client ID:
 Operator ID: BERGERB ALS Bottle#: 10 Worklist Smp#: 22
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
 Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

141 1,2,4-Trichlorobenzene, CAS: 120-82-1

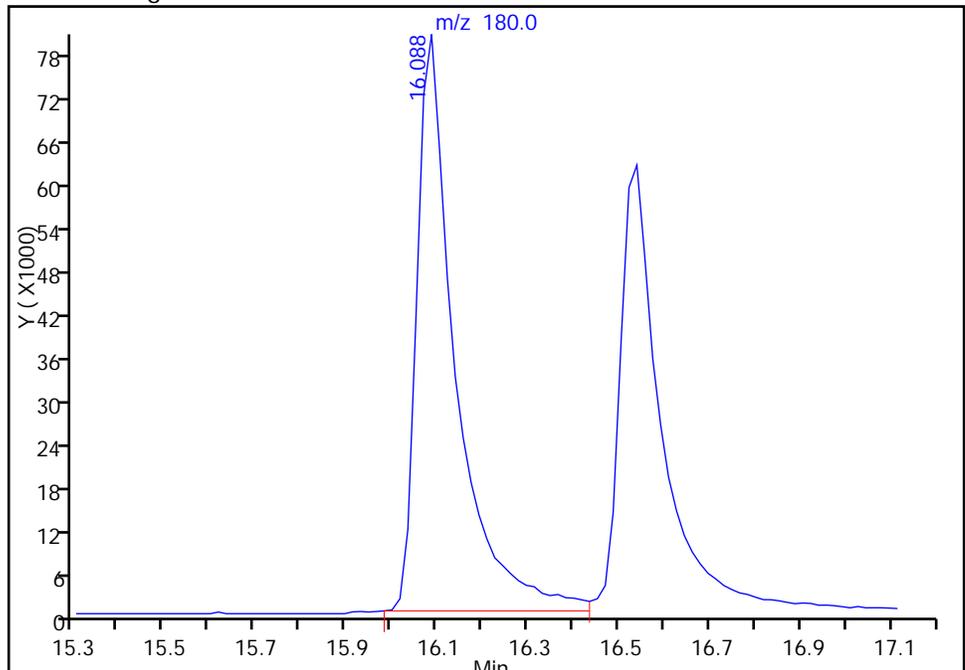
RT: 16.54
 Area: 390166
 Amount: 9.321569
 Amount Units: ug/l

Processing Integration Results



RT: 16.09
 Area: 475060
 Amount: 11.349796
 Amount Units: ug/l

Manual Integration Results



Reviewer: moanm, 02-Jun-2015 08:07:28
 Audit Action: Assigned Compound ID
 Audit Reason: Assign Peak

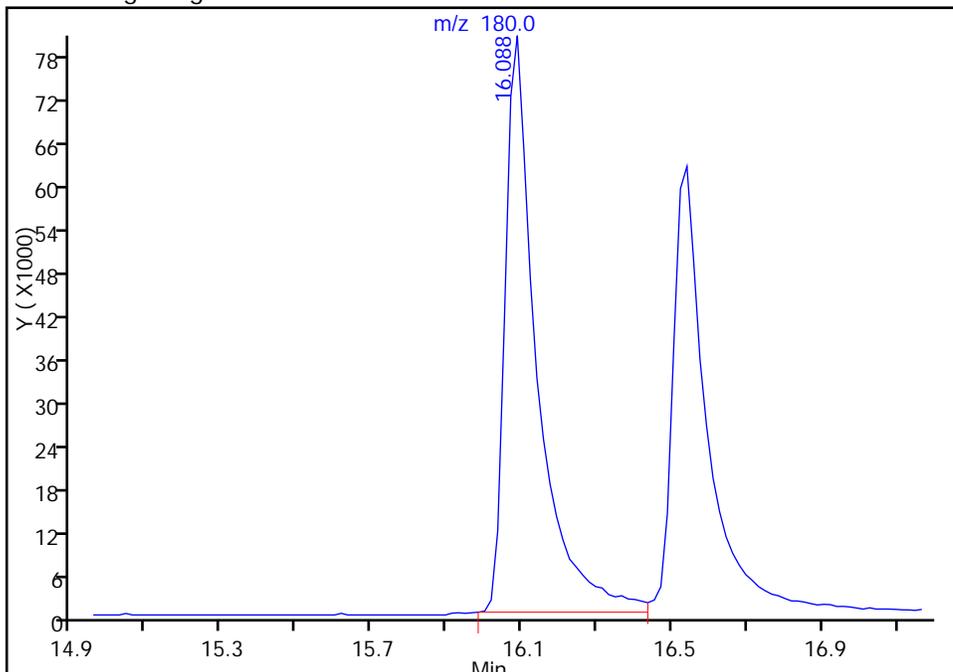
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2956.D
Injection Date: 28-May-2015 02:55:30 Instrument ID: VMS_H
Lims ID: icv
Client ID:
Operator ID: BERGERB ALS Bottle#: 10 Worklist Smp#: 22
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

144 1,2,3-Trichlorobenzene, CAS: 87-61-6

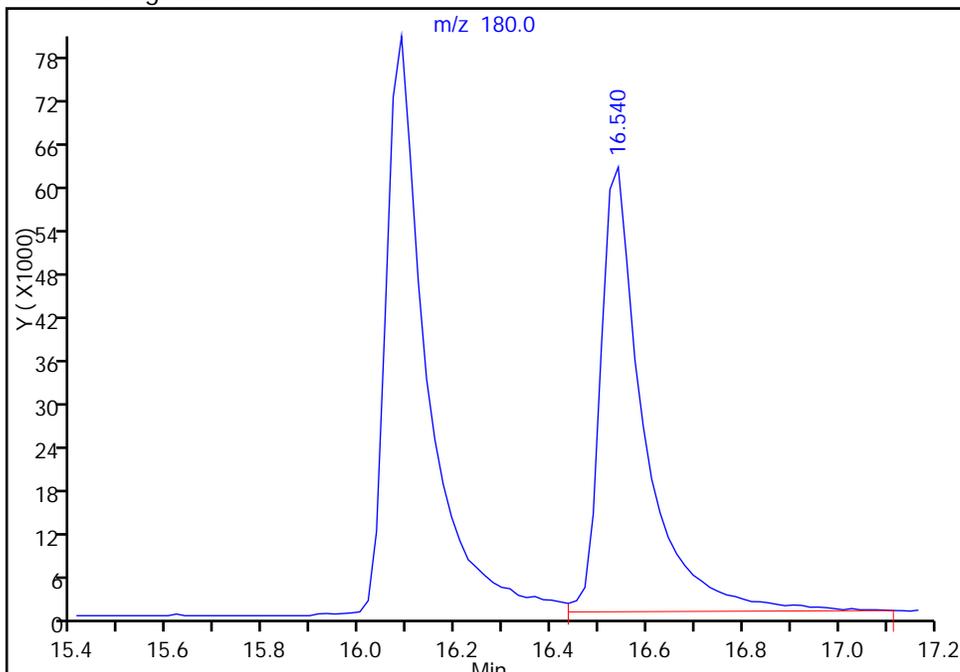
RT: 16.09
Area: 475060
Amount: 14.410380
Amount Units: ug/l

Processing Integration Results



RT: 16.54
Area: 390166
Amount: 11.835222
Amount Units: ug/l

Manual Integration Results



Reviewer: moanm, 02-Jun-2015 08:07:28
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Lab Sample ID: ICV 280-279265/23 Calibration Date: 05/28/2015 05:32
 Instrument ID: VMS_H Calib Start Date: 05/28/2015 00:18
 GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 05/28/2015 05:10
 Lab File ID: H2963.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol	Lin2		0.0007		494	500	-1.2	20.0
Isopropyl alcohol	Lin1		0.0055		88.7	100	-11.3	20.0
Acetonitrile	Lin1		0.0068		87.6	100	-12.4	20.0
Isopropyl ether	Ave	0.2894	0.2975		10.3	10.0	2.8	20.0
2-Chloro-1,3-butadiene	Ave	0.6594	0.6104		9.26	10.0	-7.4	20.0
Tert-butyl ethyl ether	Ave	1.173	1.143		9.74	10.0	-2.6	20.0
Ethyl acetate	Ave	0.1586	0.0758		9.55	20.0	-52.2*	20.0
Propionitrile	Ave	0.0113	0.0105		92.9	100	-7.1	20.0
Methacrylonitrile	Ave	0.0991	0.0961		97.0	100	-3.0	20.0
Tert-amyl methyl ether	Ave	0.9234	0.9401		10.2	10.0	1.8	20.0
n-Butanol	Ave	0.0033	0.0030		227	250	-9.4	20.0
Methyl methacrylate	Ave	0.0554	0.0515		18.6	20.0	-7.1	20.0
2-Nitropropane	Ave	0.0409	0.0376		18.4	20.0	-8.2	20.0
cis-1,4-Dichloro-2-butene	Ave	0.2201	0.2023		9.19	10.0	-8.1	20.0
1,2,3-Trimethylbenzene	Ave	3.344	3.256		9.74	10.0	-2.6	20.0
Dibromofluoromethane (Surr)	Ave	0.6313	0.6147		9.74	10.0	-2.6	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3497	0.3415		9.76	10.0	-2.4	20.0
Toluene-d8 (Surr)	Ave	6.098	5.438		8.92	10.0	-10.8	20.0
4-Bromofluorobenzene (Surr)	Ave	2.139	2.033		9.50	10.0	-5.0	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2963.D
 Lims ID: icv
 Client ID:
 Sample Type: ICV
 Inject. Date: 28-May-2015 05:32:30 ALS Bottle#: 17 Worklist Smp#: 23
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: icv
 Operator ID: BERGERB Instrument ID: VMS_H
 Sublist:

Method: \\Denchrom\ChromData\VMS_H\20150528-35452.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 28-May-2015 07:24:23 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK018

First Level Reviewer: wickhamt Date: 28-May-2015 06:59:08

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.972	3.974	-0.002	99	204860	250.0	250.0	
* 2 Fluorobenzene	96	6.758	6.759	-0.001	98	1164628	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.110	11.094	0.016	93	280885	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.122	14.106	0.016	98	430424	12.5	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.922	5.924	-0.002	93	572757	10.0	9.74	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	6.340	6.342	-0.002	83	318128	10.0	9.76	
\$ 10 Toluene-d8 (Surr)	98	8.882	8.883	-0.001	95	1222071	10.0	8.92	
\$ 11 4-Bromofluorobenzene (Surr	95	12.764	12.766	-0.002	81	700042	10.0	9.50	
34 Ethylene oxide	43	2.632	2.633	-0.001	99	932781	2000.0	1631.5	
39 Ethanol	45	3.189	3.156	0.033	97	34023	500.0	493.9	
43 Propene oxide	58	3.293	3.295	-0.002	96	951459	500.0	435.8	
49 Isopropyl alcohol	45	3.641	3.626	0.015	91	50985	100.0	88.7	
51 Acetonitrile	41	3.816	3.817	-0.001	43	63540	100.0	87.6	
62 Isopropyl ether	87	4.738	4.757	-0.019	99	277193	10.0	10.3	
63 2-Chloro-1,3-butadiene	53	4.791	4.792	-0.002	92	568751	10.0	9.26	
64 Tert-butyl ethyl ether	59	5.156	5.175	-0.019	99	1065234	10.0	9.74	
69 Ethyl acetate	43	5.417	5.419	-0.002	99	141175	20.0	9.55	
70 Propionitrile	54	5.452	5.454	-0.002	97	97746	100.0	92.9	
72 Methacrylonitrile	41	5.609	5.610	-0.001	96	895777	100.0	97.0	
83 Tert-amyl methyl ether	73	6.549	6.551	-0.001	96	875908	10.0	10.2	
85 n-Butanol	56	7.158	7.160	-0.002	92	69671	250.0	226.5	
87 Ethyl acrylate	55	7.350	7.351	-0.001	0	243316	NC	NC	
91 Methyl methacrylate	100	7.663	7.665	-0.002	95	95933	20.0	18.6	
95 2-Nitropropane	41	8.203	8.187	0.016	96	69966	20.0	18.4	
107 Tetrahydrothiophene	60	10.118	10.119	-0.001	67	94629	10.0	7.82	
119 cis-1,4-Dichloro-2-butene	53	12.660	12.661	-0.001	93	69653	10.0	9.19	
135 1,2,3-Trimethylbenzene	105	14.192	14.193	-0.001	99	1121122	10.0	9.74	
140 1,3,5-Trichlorobenzene	180	15.515	15.516	-0.001	95	569390	10.0	10.0	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

MV-568718-D_00002	Amount Added: 1.00	Units: uL
MV-Supp B_00005	Amount Added: 5.00	Units: uL
MV-ARCH SS A_00042	Amount Added: 0.80	Units: uL

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2963.D

Injection Date: 28-May-2015 05:32:30

Instrument ID: VMS_H

Operator ID: BERGERB

Lims ID: icv

Worklist Smp#: 23

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

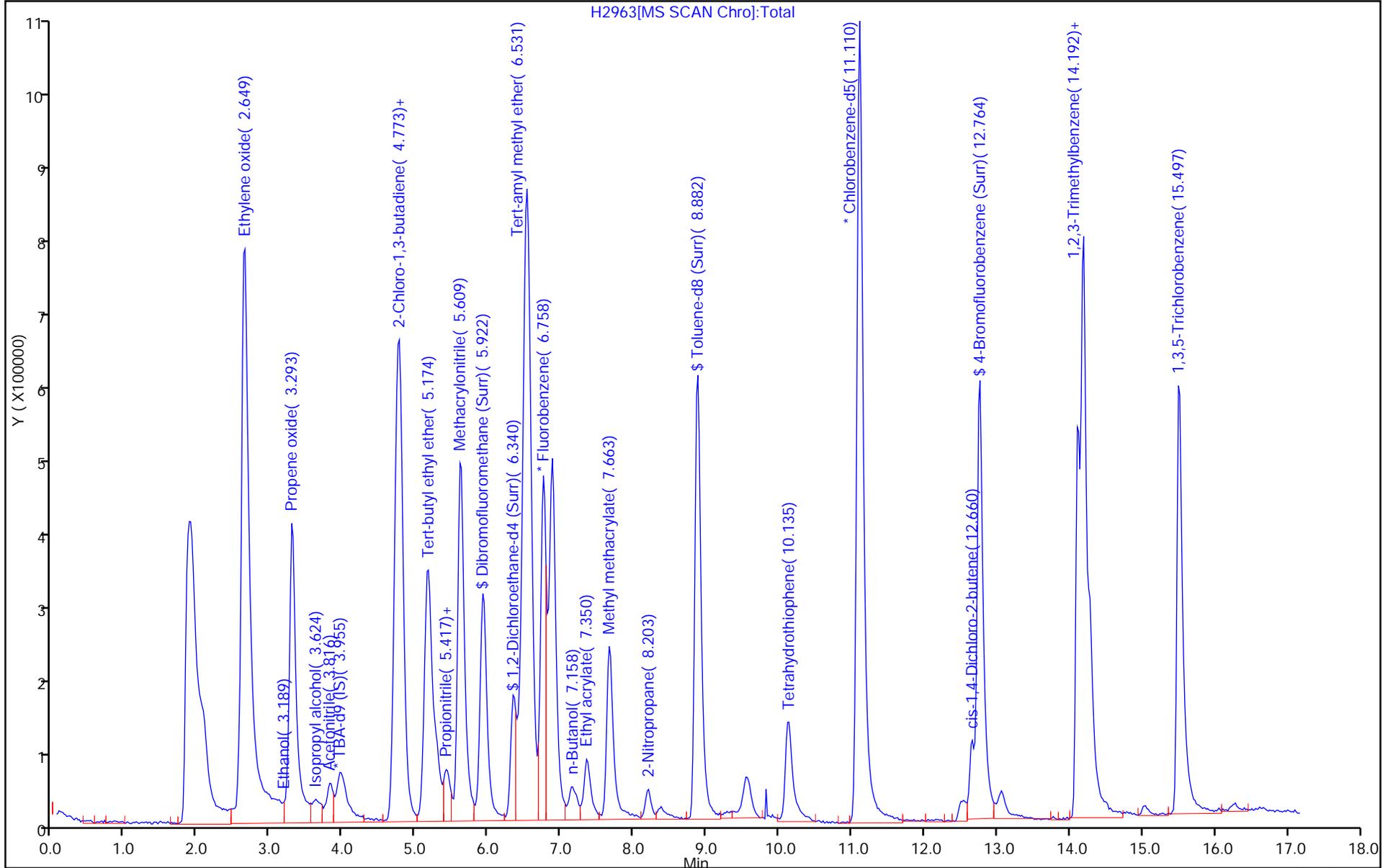
ALS Bottle#: 17

Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Lab Sample ID: CCV 280-281475/2 Calibration Date: 06/11/2015 19:03
 Instrument ID: VMS_H Calib Start Date: 05/28/2015 00:18
 GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 05/28/2015 05:10
 Lab File ID: H3590.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Lin1		0.6488		10.8	10.0	7.6	20.0
Chloromethane	Ave	0.3892	0.4173	0.1000	10.7	10.0	7.2	20.0
Vinyl chloride	Ave	0.3807	0.4115		10.8	10.0	8.1	20.0
Bromomethane	Ave	0.3159	0.3298		10.4	10.0	4.4	20.0
Chloroethane	Ave	0.2314	0.2565		11.1	10.0	10.9	20.0
Dichlorofluoromethane	Ave	0.8394	0.9771		11.6	10.0	16.4	20.0
Trichlorofluoromethane	Ave	0.7509	0.8543		11.4	10.0	13.8	20.0
Ethyl ether	Ave	0.1983	0.2199		11.1	10.0	10.9	20.0
Acrolein	Ave	0.0137	0.0086		62.7	100	-37.3*	20.0
1,1-Dichloroethene	Ave	0.3733	0.4118		11.0	10.0	10.3	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.5088	0.5621		11.0	10.0	10.5	20.0
Acetone	Ave	0.0389	0.0437		44.9	40.0	12.4	20.0
Iodomethane	Ave	0.8401	0.8823		10.5	10.0	5.0	20.0
Carbon disulfide	Ave	1.439	1.560		10.8	10.0	8.4	20.0
3-Chloro-1-propene	Ave	0.8666	0.9620		11.1	10.0	11.0	20.0
Methyl acetate	Ave	0.1259	0.1436		57.0	50.0	14.0	20.0
Methylene Chloride	Lin2		0.3639		11.0	10.0	10.5	20.0
tert-Butyl alcohol	Lin1		1.294		107	100	6.7	20.0
Acrylonitrile	Ave	0.0326	0.0364		112	100	11.8	20.0
Methyl tert-butyl ether	Ave	0.7116	0.7922		11.1	10.0	11.3	20.0
trans-1,2-Dichloroethene	Ave	0.4200	0.4560		10.9	10.0	8.6	20.0
Hexane	Ave	3.353	3.545		10.6	10.0	5.8	20.0
1,1-Dichloroethane	Ave	0.8867	0.9620	0.1000	10.8	10.0	8.5	20.0
Vinyl acetate	Ave	0.5491	0.6492		23.6	20.0	18.2	20.0
2-Butanone (MEK)	Ave	0.0717	0.0859		47.9	40.0	19.8	20.0
2,2-Dichloropropane	Lin2		0.9121		11.7	10.0	17.0	20.0
cis-1,2-Dichloroethene	Ave	0.4232	0.4527		10.7	10.0	7.0	20.0
sec-Butyl Alcohol	Ave	1.790	1.573		264	300	-12.1	20.0
Bromochloromethane	Ave	0.1857	0.2010		10.8	10.0	8.2	20.0
Tetrahydrofuran	Ave	0.0516	0.0593		23.0	20.0	14.9	20.0
Chloroform	Ave	0.8281	0.8896		10.7	10.0	7.4	20.0
1,1,1-Trichloroethane	Ave	0.7908	0.8848		11.2	10.0	11.9	20.0
Cyclohexane	Ave	0.8724	0.9598		11.0	10.0	10.0	20.0
1,1-Dichloropropene	Ave	0.7089	0.7566		10.7	10.0	6.7	20.0
Carbon tetrachloride	Ave	0.7352	0.8362		11.4	10.0	13.7	20.0
Isobutyl alcohol	Ave	0.6270	0.6251		249	250	-0.3	20.0
Benzene	Ave	1.309	1.462		11.2	10.0	11.6	20.0
1,2-Dichloroethane	Ave	0.3956	0.4327		10.9	10.0	9.4	20.0
Trichloroethene	Ave	0.5325	0.5964		11.2	10.0	12.0	20.0
2-Pentanone	Ave	0.1989	0.2260		45.4	40.0	13.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Lab Sample ID: CCV 280-281475/2 Calibration Date: 06/11/2015 19:03
 Instrument ID: VMS_H Calib Start Date: 05/28/2015 00:18
 GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 05/28/2015 05:10
 Lab File ID: H3590.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.7772	0.8930		11.5	10.0	14.9	20.0
1,2-Dichloropropane	Ave	0.5231	0.5655		10.8	10.0	8.1	20.0
Dibromomethane	Ave	0.2607	0.2764		10.6	10.0	6.0	20.0
1,4-Dioxane	Lin2		0.0018		237	200	18.5	20.0
Bromodichloromethane	Ave	0.7613	0.8340		11.0	10.0	9.6	20.0
2-Chloroethyl vinyl ether	Ave	0.0935	0.1055		11.3	10.0	12.8	20.0
cis-1,3-Dichloropropene	Ave	2.945	3.066		10.4	10.0	4.1	20.0
4-Methyl-2-pentanone (MIBK)	Lin1		0.3189		48.0	40.0	19.9	20.0
Toluene	Ave	1.501	1.619		10.8	10.0	7.9	20.0
trans-1,3-Dichloropropene	Ave	0.4794	0.4601		9.60	10.0	-4.0	20.0
Ethyl methacrylate	Ave	1.808	1.846		10.2	10.0	2.1	20.0
1,1,2-Trichloroethane	Ave	0.3008	0.3047		10.1	10.0	1.3	20.0
Tetrachloroethene	Ave	2.034	2.116		10.4	10.0	4.1	20.0
1,3-Dichloropropane	Ave	2.292	2.281		9.95	10.0	-0.5	20.0
2-Hexanone	Lin1		0.8695		41.9	40.0	4.7	20.0
Chlorodibromomethane	Ave	2.231	2.284		10.2	10.0	2.4	20.0
1,2-Dibromoethane	Ave	1.573	1.613		10.3	10.0	2.6	20.0
1-Chlorohexane	Ave	3.436	3.450		10.0	10.0	0.4	20.0
Chlorobenzene	Ave	4.483	4.641	0.3000	10.4	10.0	3.5	20.0
1,1,1,2-Tetrachloroethane	Ave	2.164	2.188		10.1	10.0	1.1	20.0
Ethylbenzene	Ave	2.285	2.423		10.6	10.0	6.0	20.0
m-Xylene & p-Xylene	Ave	3.107	3.165		10.2	10.0	1.9	20.0
o-Xylene	Ave	2.726	2.807		10.3	10.0	3.0	20.0
Styrene	Ave	4.408	4.568		10.4	10.0	3.6	20.0
Bromoform	Ave	1.204	1.273	0.1000	10.6	10.0	5.7	20.0
Isopropylbenzene	Ave	5.356	5.318		9.93	10.0	-0.7	20.0
Cyclohexanone	Lin1		0.0313		452	400	13.1	20.0
1,1,2,2-Tetrachloroethane	Ave	1.115	1.068	0.3000	9.58	10.0	-4.2	20.0
Bromobenzene	Ave	1.235	1.219		9.87	10.0	-1.3	20.0
1,2,3-Trichloropropane	Ave	0.2607	0.2486		9.54	10.0	-4.6	20.0
trans-1,4-Dichloro-2-buten e	Ave	0.2926	0.2669		9.12	10.0	-8.8	20.0
N-Propylbenzene	Ave	1.311	1.304		9.95	10.0	-0.5	20.0
2-Chlorotoluene	Ave	1.016	1.014		9.98	10.0	-0.2	20.0
1,3,5-Trimethylbenzene	Ave	4.052	4.007		9.89	10.0	-1.1	20.0
4-Chlorotoluene	Ave	1.313	1.290		9.83	10.0	-1.7	20.0
tert-Butylbenzene	Ave	4.395	4.289		9.76	10.0	-2.4	20.0
1,2,4-Trimethylbenzene	Ave	3.849	3.756		9.76	10.0	-2.4	20.0
sec-Butylbenzene	Ave	1.160	1.133		9.77	10.0	-2.3	20.0
1,3-Dichlorobenzene	Ave	1.876	1.916		10.2	10.0	2.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Lab Sample ID: CCV 280-281475/2 Calibration Date: 06/11/2015 19:03
 Instrument ID: VMS_H Calib Start Date: 05/28/2015 00:18
 GC Column: DB-624 (75.53) ID: 0.53 (mm) Calib End Date: 05/28/2015 05:10
 Lab File ID: H3590.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
p-Isopropyltoluene	Ave	4.989	5.056		10.1	10.0	1.3	20.0
1,4-Dichlorobenzene	Ave	2.898	2.709		9.35	10.0	-6.5	20.0
n-Butylbenzene	Ave	5.241	5.221		9.96	10.0	-0.4	20.0
1,2-Dichlorobenzene	Ave	1.969	1.859		9.44	10.0	-5.6	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1839	0.1805		9.82	10.0	-1.8	20.0
1,2,4-Trichlorobenzene	Ave	1.323	1.328		10.0	10.0	0.4	20.0
Hexachlorobutadiene	Ave	1.379	1.359		9.86	10.0	-1.4	20.0
Naphthalene	Ave	1.505	1.506		10.0	10.0	0.0	20.0
1,2,3-Trichlorobenzene	Ave	1.042	1.057		10.1	10.0	1.5	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150611-35960.b\H3590.D
 Lims ID: CCV
 Client ID:
 Sample Type: CCV
 Inject. Date: 11-Jun-2015 19:03:30 ALS Bottle#: 1 Worklist Smp#: 2
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: CCV M
 Operator ID: bergerb Instrument ID: VMS_H
 Sublist: chrom-AQ_VMSH_8260*sub52
 Method: \\Denchrom\ChromData\VMS_H\20150611-35960.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 12-Jun-2015 11:42:29 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: RT Order ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK002

First Level Reviewer: bergerb Date: 12-Jun-2015 11:42:29

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.977	3.977	0.000	13	245830	250.0	250.0	
* 2 Fluorobenzene	96	6.762	6.762	0.000	91	1092324	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.114	11.114	0.000	88	259640	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.109	14.109	0.000	75	445079	12.5	12.5	
28 Dichlorodifluoromethane	85	2.166	2.166	0.000	99	566950	10.0	10.8	
30 Chloromethane	50	2.270	2.270	0.000	77	364632	10.0	10.7	M
31 Butadiene	54	2.375	2.375	0.000	0	275056	NC	NC	
32 Vinyl chloride	62	2.392	2.392	0.000	93	359548	10.0	10.8	
35 Bromomethane	94	2.671	2.671	0.000	88	288237	10.0	10.4	
36 Chloroethane	64	2.740	2.740	0.000	83	224183	10.0	11.1	
37 Dichlorofluoromethane	67	2.932	2.932	0.000	97	853852	10.0	11.6	
38 Trichlorofluoromethane	101	2.984	2.984	0.000	98	746513	10.0	11.4	
40 Ethyl ether	59	3.211	3.211	0.000	87	192151	10.0	11.1	
44 Acrolein	56	3.367	3.367	0.000	90	74902	100.0	62.7	
45 1,1-Dichloroethene	96	3.472	3.472	0.000	90	359818	10.0	11.0	
47 Acetone	43	3.507	3.507	0.000	22	152784	40.0	44.9	
46 1,1,2-Trichloro-1,2,2-trif	151	3.507	3.507	0.000	91	491194	10.0	11.0	
48 Iodomethane	142	3.646	3.646	0.000	98	771008	10.0	10.5	
50 Carbon disulfide	76	3.715	3.715	0.000	99	1363497	10.0	10.8	
52 3-Chloro-1-propene	41	3.820	3.820	0.000	90	840662	10.0	11.1	
53 Methyl acetate	43	3.820	3.820	0.000	71	627292	50.0	57.0	
54 Methylene Chloride	84	3.942	3.942	0.000	86	318010	10.0	11.0	
55 2-Methyl-2-propanol	59	4.081	4.081	0.000	6	127253	100.0	106.7	
57 Acrylonitrile	53	4.203	4.203	0.000	71	318118	100.0	111.8	
56 Methyl tert-butyl ether	73	4.238	4.238	0.000	81	692224	10.0	11.1	
58 trans-1,2-Dichloroethene	96	4.238	4.238	0.000	73	398494	10.0	10.9	
59 Hexane	57	4.499	4.499	0.000	93	736403	10.0	10.6	
60 1,1-Dichloroethane	63	4.690	4.690	0.000	96	840681	10.0	10.8	
61 Vinyl acetate	43	4.708	4.708	0.000	90	1134554	20.0	23.6	
67 2-Butanone (MEK)	43	5.352	5.352	0.000	49	300282	40.0	47.9	
65 cis-1,2-Dichloroethene	96	5.369	5.369	0.000	80	395562	10.0	10.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
66 2,2-Dichloropropane	77	5.369	5.369	0.000	79	797011	10.0	11.7	
71 sec-Butyl Alcohol	45	5.578	5.578	0.000	53	464049	300.0	263.7	
73 Chlorobromomethane	128	5.648	5.648	0.000	78	175656	10.0	10.8	
74 Tetrahydrofuran	42	5.700	5.700	0.000	37	103643	20.0	23.0	
75 Chloroform	83	5.735	5.735	0.000	92	777355	10.0	10.7	
76 1,1,1-Trichloroethane	97	5.979	5.979	0.000	90	773206	10.0	11.2	
77 Cyclohexane	56	6.048	6.048	0.000	92	838767	10.0	11.0	
78 1,1-Dichloropropene	75	6.153	6.153	0.000	78	661159	10.0	10.7	
79 Carbon tetrachloride	117	6.188	6.188	0.000	77	730728	10.0	11.4	
80 Isobutyl alcohol	41	6.292	6.292	0.000	65	153678	250.0	249.3	
81 Benzene	78	6.414	6.414	0.000	94	1277274	10.0	11.2	
82 1,2-Dichloroethane	62	6.431	6.431	0.000	47	378148	10.0	10.9	
84 n-Heptane	43	6.727	6.727	0.000	96	1152310	10.0	11.4	
86 Trichloroethene	95	7.232	7.232	0.000	92	521164	10.0	11.2	
88 2-Pentanone	43	7.458	7.458	0.000	83	790014	40.0	45.4	
89 Methylcyclohexane	55	7.493	7.493	0.000	75	780336	10.0	11.5	
90 1,2-Dichloropropane	63	7.528	7.528	0.000	68	494147	10.0	10.8	
92 Dibromomethane	93	7.702	7.702	0.000	85	241500	10.0	10.6	
93 1,4-Dioxane	88	7.720	7.720	0.000	1	30872	200.0	237.1	
94 Dichlorobromomethane	83	7.894	7.894	0.000	94	728798	10.0	11.0	
96 2-Chloroethyl vinyl ether	63	8.294	8.294	0.000	65	92189	10.0	11.3	
97 cis-1,3-Dichloropropene	75	8.503	8.503	0.000	79	636866	10.0	10.4	
98 4-Methyl-2-pentanone (MIBK)	43	8.712	8.712	0.000	92	1114684	40.0	48.0	
99 Toluene	91	8.973	8.973	0.000	96	1415069	10.0	10.8	
100 trans-1,3-Dichloropropene	75	9.286	9.286	0.000	97	402069	10.0	9.60	M
101 Ethyl methacrylate	69	9.408	9.408	0.000	84	383498	10.0	10.2	
102 1,1,2-Trichloroethane	97	9.548	9.548	0.000	87	266217	10.0	10.1	
103 Tetrachloroethene	164	9.757	9.757	0.000	91	439549	10.0	10.4	
104 1,3-Dichloropropane	76	9.791	9.791	0.000	95	473815	10.0	9.95	
105 2-Hexanone	43	9.913	9.913	0.000	94	722457	40.0	41.9	
108 Chlorodibromomethane	129	10.157	10.157	0.000	90	474489	10.0	10.2	
109 Ethylene Dibromide	107	10.331	10.331	0.000	90	335033	10.0	10.3	
110 1-Chlorohexane	91	11.114	11.114	0.000	83	716704	10.0	10.0	
111 Chlorobenzene	112	11.149	11.149	0.000	86	964022	10.0	10.4	
112 1,1,1,2-Tetrachloroethane	131	11.289	11.289	0.000	77	454399	10.0	10.1	
113 Ethylbenzene	106	11.323	11.323	0.000	77	503332	10.0	10.6	
114 m-Xylene & p-Xylene	106	11.498	11.498	0.000	97	657309	10.0	10.2	
115 o-Xylene	106	12.072	12.072	0.000	90	583122	10.0	10.3	
116 Styrene	104	12.089	12.089	0.000	84	948828	10.0	10.4	
117 Bromoform	173	12.351	12.351	0.000	92	264369	10.0	10.6	
118 Isopropylbenzene	105	12.559	12.559	0.000	67	1893397	10.0	9.93	
120 Cyclohexanone	55	12.681	12.681	0.000	63	260034	400.0	452.3	
122 Bromobenzene	156	12.942	12.942	0.000	94	434142	10.0	9.87	
121 1,1,2,2-Tetrachloroethane	83	12.942	12.942	0.000	44	380237	10.0	9.58	
123 1,2,3-Trichloropropane	110	12.995	12.995	0.000	52	88529	10.0	9.54	
124 trans-1,4-Dichloro-2-buten	53	13.012	13.012	0.000	35	95037	10.0	9.12	
125 N-Propylbenzene	120	13.082	13.082	0.000	86	464479	10.0	9.95	
126 2-Chlorotoluene	126	13.186	13.186	0.000	15	360890	10.0	9.98	
127 1,3,5-Trimethylbenzene	105	13.291	13.291	0.000	89	1426811	10.0	9.89	
128 4-Chlorotoluene	126	13.308	13.308	0.000	86	459472	10.0	9.83	
129 tert-Butylbenzene	119	13.674	13.674	0.000	95	1527144	10.0	9.76	
130 1,2,4-Trimethylbenzene	105	13.726	13.726	0.000	91	1337317	10.0	9.76	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
131 sec-Butylbenzene	134	13.917	13.917	0.000	80	403373	10.0	9.77	
132 1,3-Dichlorobenzene	146	14.039	14.039	0.000	73	682332	10.0	10.2	
133 4-Isopropyltoluene	119	14.074	14.074	0.000	90	1800285	10.0	10.1	
134 1,4-Dichlorobenzene	146	14.126	14.126	0.000	80	964473	10.0	9.35	
137 n-Butylbenzene	91	14.509	14.509	0.000	95	1859109	10.0	9.96	
138 1,2-Dichlorobenzene	146	14.527	14.527	0.000	67	661926	10.0	9.44	
139 1,2-Dibromo-3-Chloropropan	157	15.310	15.310	0.000	71	64278	10.0	9.82	
141 1,2,4-Trichlorobenzene	180	16.076	16.076	0.000	92	472891	10.0	10.0	
142 Hexachlorobutadiene	225	16.233	16.233	0.000	90	483913	10.0	9.86	
143 Naphthalene	128	16.303	16.303	0.000	95	536150	10.0	10.0	
144 1,2,3-Trichlorobenzene	180	16.529	16.529	0.000	93	376393	10.0	10.1	
S 151 1,2-Dichloroethene, Total	96				0		20.0	21.6	
S 149 1,2-Dichloroethene, Total	1				0		20.0	21.6	
S 150 Xylenes, Total	106				0		20.0	20.5	
S 148 1,3-Dichloropropene, Total	1				0		20.0	20.0	
S 145 Trihalomethanes, Total	1				0		40.0	42.5	
S 146 Xylenes, Total (URS)	1				0		20.0	20.5	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

MV-568718-D_00002	Amount Added: 1.00	Units: uL
MV-Main A_00022	Amount Added: 5.00	Units: uL
MV-Gas/Ket A_00033	Amount Added: 5.00	Units: uL
MV-2cleve+AVA_00010	Amount Added: 5.00	Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150611-35960.b\H3590.D

Injection Date: 11-Jun-2015 19:03:30

Instrument ID: VMS_H

Operator ID: bergerb

Lims ID: CCV

Worklist Smp#: 2

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

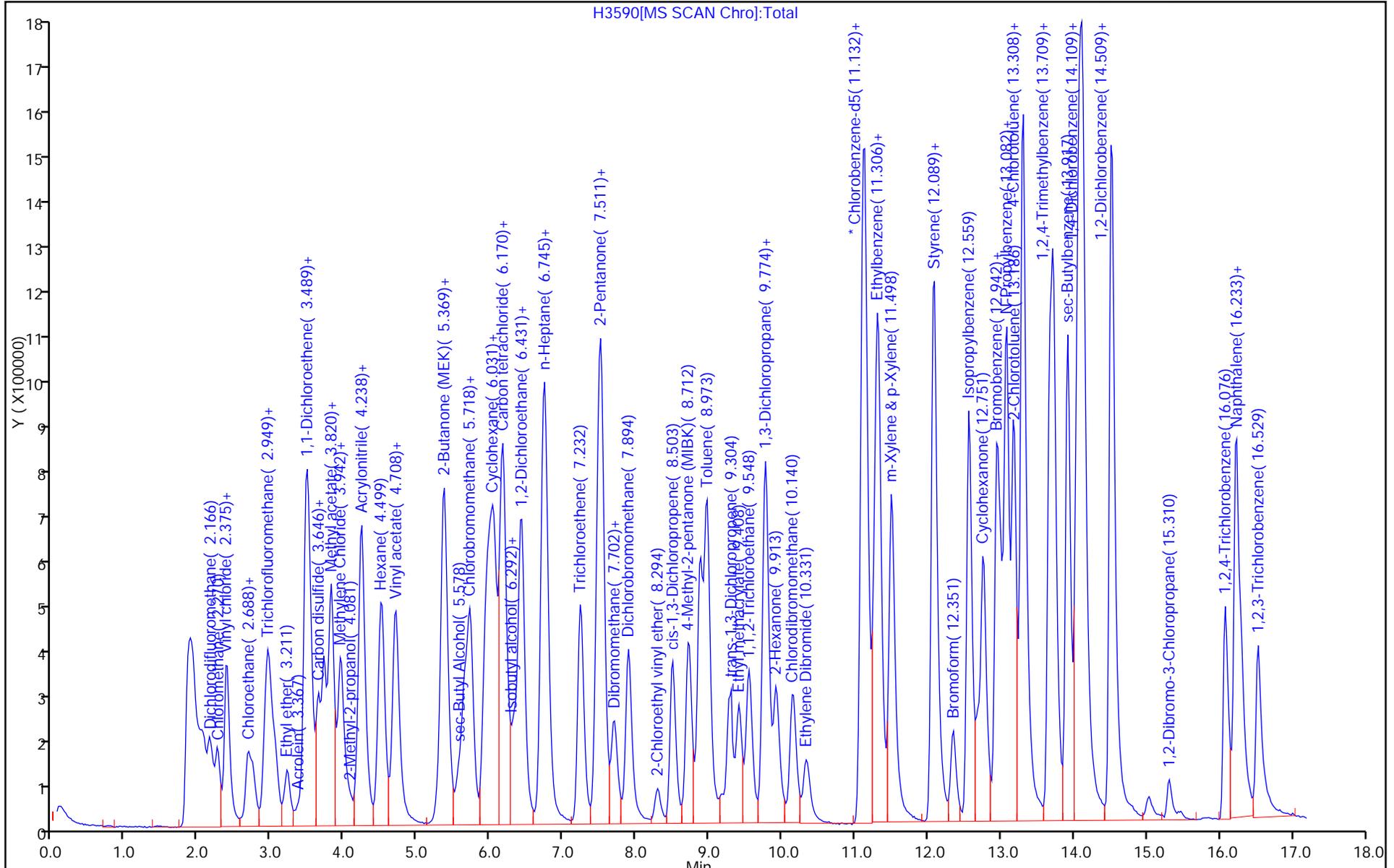
ALS Bottle#: 1

Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



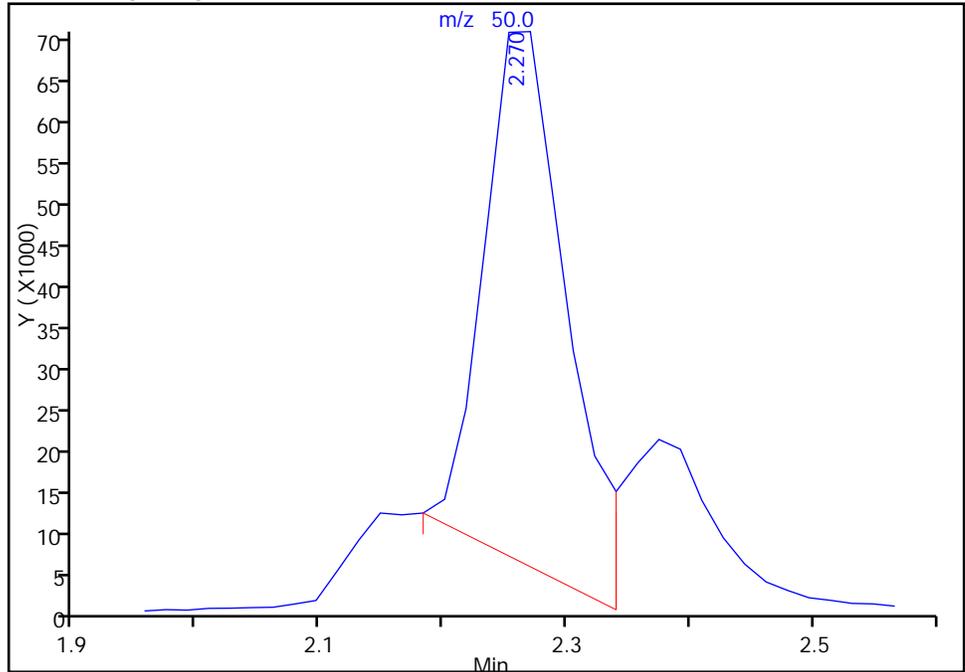
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150611-35960.b\H3590.D
Injection Date: 11-Jun-2015 19:03:30 Instrument ID: VMS_H
Lims ID: CCV
Client ID:
Operator ID: bergerb ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

30 Chloromethane, CAS: 74-87-3

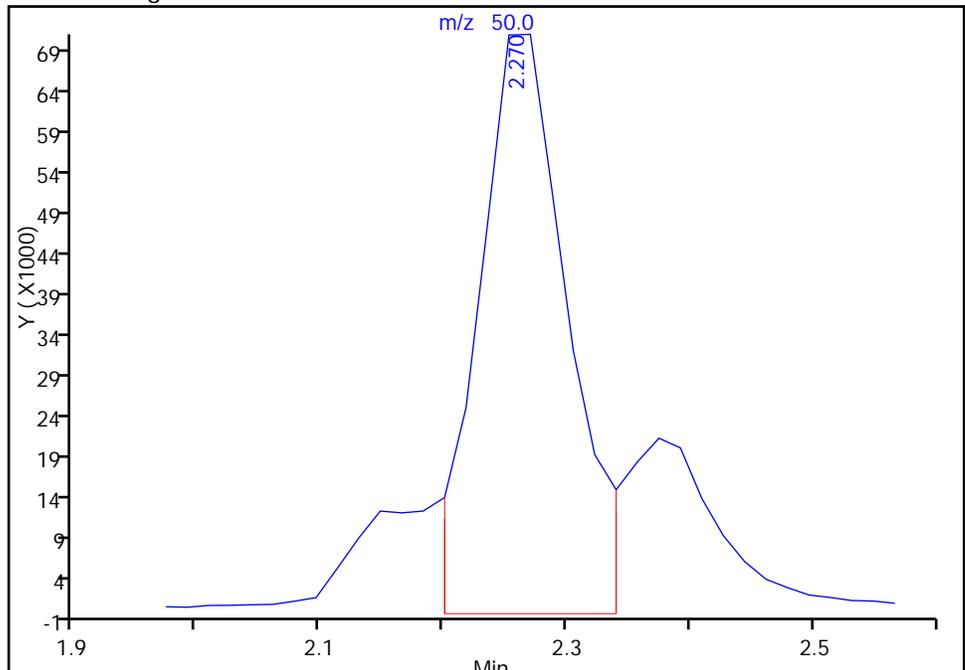
RT: 2.27
Area: 307552
Amount: 9.042022
Amount Units: ug/l

Processing Integration Results



RT: 2.27
Area: 364632
Amount: 10.720173
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 11-Jun-2015 19:32:42
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

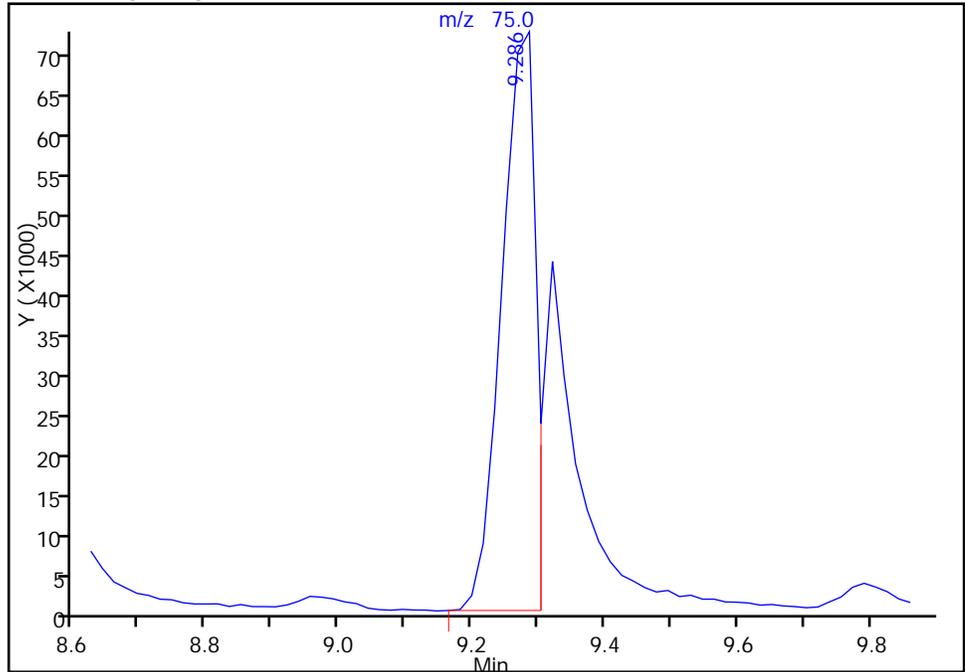
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150611-35960.b\H3590.D
Injection Date: 11-Jun-2015 19:03:30 Instrument ID: VMS_H
Lims ID: CCV
Client ID:
Operator ID: bergerb ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

100 trans-1,3-Dichloropropene, CAS: 10061-02-6

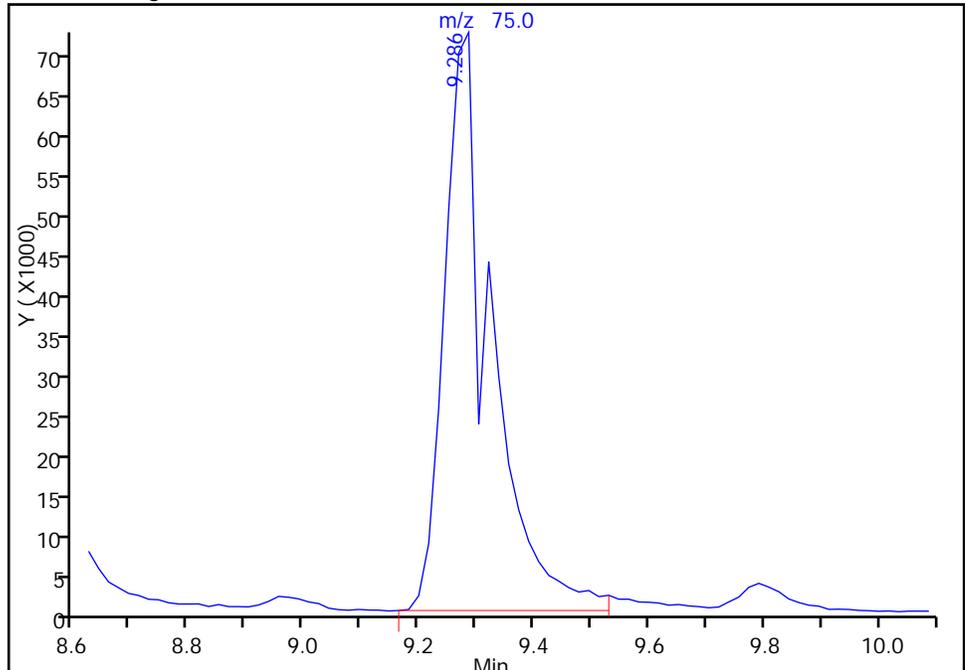
RT: 9.29
Area: 259600
Amount: 6.197103
Amount Units: ug/l

Processing Integration Results



RT: 9.29
Area: 402069
Amount: 9.598085
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 11-Jun-2015 19:32:42
Audit Action: Split an Integrated Peak
Audit Reason: Split Peak

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Lab Sample ID: CCV 280-281475/3 Calibration Date: 06/11/2015 19:25
 Instrument ID: VMS_H Calib Start Date: 05/28/2015 00:18
 GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 05/28/2015 05:10
 Lab File ID: H3591.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol	Lin2		0.0009		613	500	22.6*	20.0
Isopropyl alcohol	Lin1		0.0076		125	100	25.4*	20.0
Acetonitrile	Lin1		0.0078		129	125	3.3	20.0
Isopropyl ether	Ave	0.2894	0.3112		13.4	12.5	7.5	20.0
2-Chloro-1,3-butadiene	Ave	0.6594	0.7078		10.7	10.0	7.3	20.0
Tert-butyl ethyl ether	Ave	1.173	1.232		13.1	12.5	5.0	20.0
Ethyl acetate	Ave	0.1586	0.1750		22.1	20.0	10.4	20.0
Propionitrile	Ave	0.0113	0.0128		141	125	13.1	20.0
Methacrylonitrile	Ave	0.0991	0.1071		108	100	8.1	20.0
Tert-amyl methyl ether	Ave	0.9234	1.014		13.7	12.5	9.9	20.0
n-Butanol	Ave	0.0033	0.0036		275	250	10.0	20.0
Methyl methacrylate	Ave	0.0554	0.0535		19.3	20.0	-3.4	20.0
2-Nitropropane	Ave	0.0409	0.0490		23.9	20.0	19.7	20.0
cis-1,4-Dichloro-2-butene	Ave	0.2201	0.2221		10.1	10.0	0.9	20.0
1,2,3-Trimethylbenzene	Ave	3.344	3.436		10.3	10.0	2.7	20.0
Dibromofluoromethane (Surr)	Ave	0.6313	0.6638		8.94	8.50	5.1	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3497	0.3668		8.91	8.50	4.9	20.0
Toluene-d8 (Surr)	Ave	6.098	5.865		8.17	8.50	-3.8	20.0
4-Bromofluorobenzene (Surr)	Ave	2.139	2.069		8.22	8.50	-3.3	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150611-35960.b\H3591.D
 Lims ID: CCV
 Client ID:
 Sample Type: CCV
 Inject. Date: 11-Jun-2015 19:25:30 ALS Bottle#: 2 Worklist Smp#: 3
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: CCV S
 Operator ID: bergerb Instrument ID: VMS_H
 Sublist: chrom-AQ_VMSH_8260*sub86
 Method: \\Denchrom\ChromData\VMS_H\20150611-35960.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 12-Jun-2015 11:42:24 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK002

First Level Reviewer: bergerb

Date: 12-Jun-2015 11:42:24

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.988	3.988	0.000	99	259552	250.0	250.0	
* 2 Fluorobenzene	96	6.774	6.774	0.000	98	1184349	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.109	11.109	0.000	93	295559	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.120	14.120	0.000	98	455438	12.5	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.921	5.921	0.000	92	534581	8.50	8.94	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	6.338	6.338	0.000	83	295365	8.50	8.91	
\$ 10 Toluene-d8 (Surr)	98	8.880	8.880	0.000	95	1178781	8.50	8.17	
\$ 11 4-Bromofluorobenzene (Surr	95	12.763	12.763	0.000	81	640814	8.50	8.22	
34 Ethylene oxide	43	2.648	2.648	0.000	99	1323431	2000.0	2276.2	
39 Ethanol	45	3.152	3.152	0.000	91	42237	500.0	612.9	
43 Propene oxide	58	3.309	3.309	0.000	96	1247813	500.0	562.0	
49 Isopropyl alcohol	45	3.640	3.640	0.000	98	71646	100.0	125.4	
51 Acetonitrile	41	3.814	3.814	0.000	98	91800	125.0	129.2	
62 Isopropyl ether	87	4.754	4.754	0.000	98	368536	12.5	13.4	
63 2-Chloro-1,3-butadiene	53	4.789	4.789	0.000	92	670609	10.0	10.7	
64 Tert-butyl ethyl ether	59	5.172	5.172	0.000	99	1458737	12.5	13.1	
69 Ethyl acetate	43	5.416	5.416	0.000	99	331680	20.0	22.1	
70 Propionitrile	54	5.451	5.451	0.000	98	151307	125.0	141.4	
72 Methacrylonitrile	41	5.625	5.625	0.000	96	1014704	100.0	108.1	
83 Tert-amyl methyl ether	73	6.547	6.547	0.000	96	1201460	12.5	13.7	
85 n-Butanol	56	7.157	7.157	0.000	93	86010	250.0	275.0	
87 Ethyl acrylate	55	7.348	7.348	0.000	0	276072	NC	NC	
91 Methyl methacrylate	100	7.662	7.662	0.000	95	101449	20.0	19.3	
95 2-Nitropropane	41	8.201	8.201	0.000	97	92774	20.0	23.9	
107 Tetrahydrothiophene	60	10.134	10.134	0.000	58	117149	10.0	9.20	
119 cis-1,4-Dichloro-2-butene	53	12.658	12.658	0.000	96	80930	10.0	10.1	
135 1,2,3-Trimethylbenzene	105	14.190	14.190	0.000	98	1251759	10.0	10.3	
140 1,3,5-Trichlorobenzene	180	15.513	15.513	0.000	95	618721	10.0	10.3	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

MV-Supp A_00011	Amount Added: 5.00	Units: uL	
MV-568718-D_00002	Amount Added: 1.00	Units: uL	Run Reagent
MV-ARCH SS A_00042	Amount Added: 0.68	Units: uL	Run Reagent

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150611-35960.b\H3591.D

Injection Date: 11-Jun-2015 19:25:30

Instrument ID: VMS_H

Operator ID: bergerb

Lims ID: CCV

Worklist Smp#: 3

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

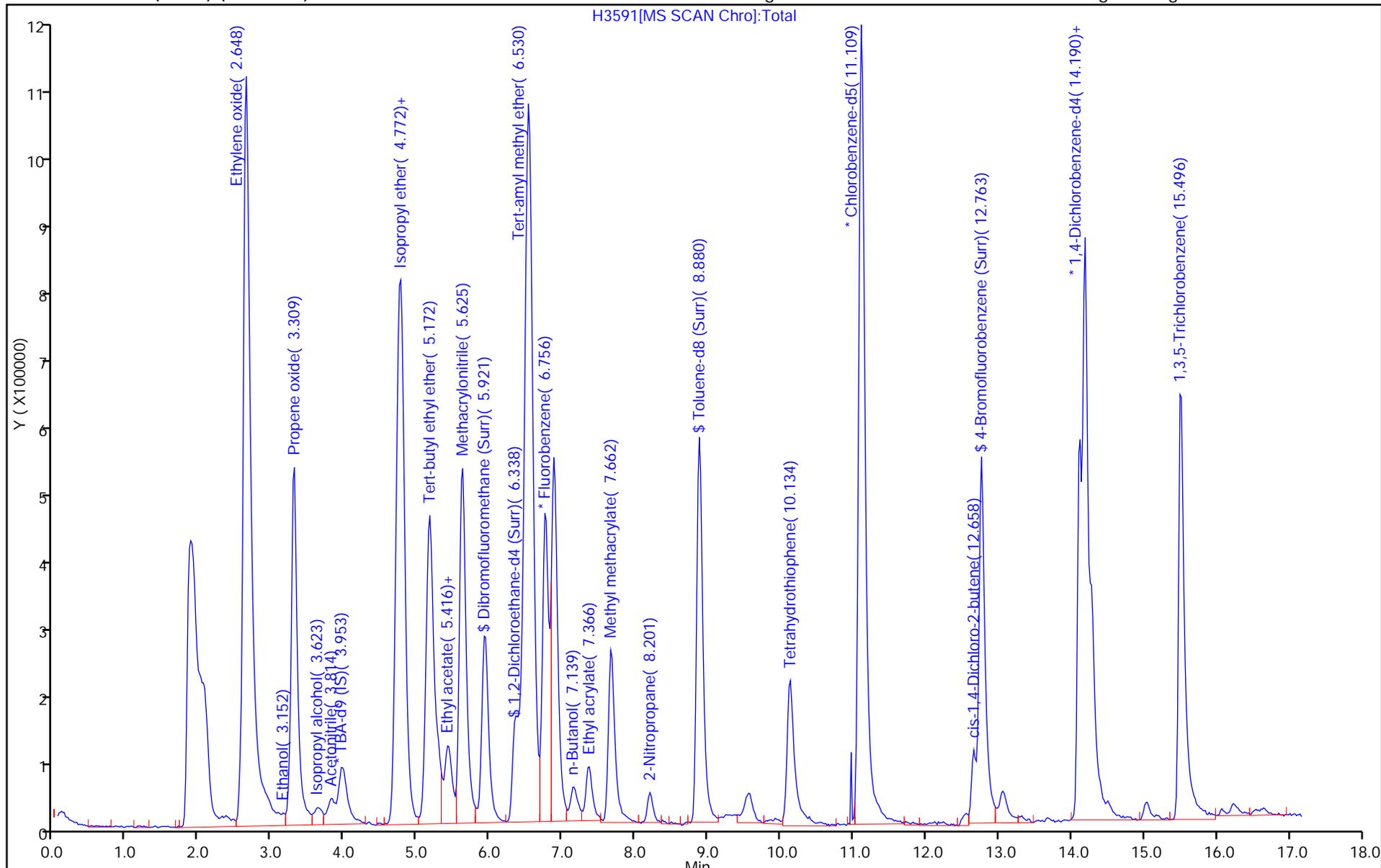
ALS Bottle#: 2

Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Lab Sample ID: CCVC 280-281475/33 Calibration Date: 06/12/2015 06:08
 Instrument ID: VMS_H Calib Start Date: 05/28/2015 00:18
 GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 05/28/2015 05:10
 Lab File ID: H3619.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Lin1		0.5886		9.77	10.0	-2.3	50.0
Chloromethane	Ave	0.3892	0.3776	0.1000	9.70	10.0	-3.0	50.0
Vinyl chloride	Ave	0.3807	0.3549		9.32	10.0	-6.8	50.0
Bromomethane	Ave	0.3159	0.2965		9.38	10.0	-6.2	50.0
Chloroethane	Ave	0.2314	0.2236		9.66	10.0	-3.4	50.0
Dichlorofluoromethane	Ave	0.8394	0.8796		10.5	10.0	4.8	50.0
Trichlorofluoromethane	Ave	0.7509	0.7491		9.98	10.0	-0.2	50.0
Ethyl ether	Ave	0.1983	0.2094		10.6	10.0	5.6	50.0
Acrolein	Ave	0.0137	0.0077		56.0	100	-44.0	50.0
1,1-Dichloroethene	Ave	0.3733	0.3618		9.69	10.0	-3.1	50.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.5088	0.5001		9.83	10.0	-1.7	50.0
Acetone	Ave	0.0389	0.0387		39.8	40.0	-0.4	50.0
Iodomethane	Ave	0.8401	0.8363		9.95	10.0	-0.5	50.0
Carbon disulfide	Ave	1.439	1.369		9.51	10.0	-4.9	50.0
3-Chloro-1-propene	Ave	0.8666	0.8380		9.67	10.0	-3.3	50.0
Methyl acetate	Ave	0.1259	0.1372		54.5	50.0	9.0	50.0
Methylene Chloride	Lin2		0.3372		10.2	10.0	2.0	50.0
tert-Butyl alcohol	Lin1		1.181		97.0	100	-3.0	50.0
Acrylonitrile	Ave	0.0326	0.0342		105	100	5.1	50.0
Methyl tert-butyl ether	Ave	0.7116	0.7411		10.4	10.0	4.1	50.0
trans-1,2-Dichloroethene	Ave	0.4200	0.4070		9.69	10.0	-3.1	50.0
Hexane	Ave	3.353	2.938		8.76	10.0	-12.4	50.0
1,1-Dichloroethane	Ave	0.8867	0.8762	0.1000	9.88	10.0	-1.2	50.0
Vinyl acetate	Ave	0.5491	0.5143		18.7	20.0	-6.3	50.0
2-Butanone (MEK)	Ave	0.0717	0.0817		45.6	40.0	14.0	50.0
cis-1,2-Dichloroethene	Ave	0.4232	0.4270		10.1	10.0	0.9	50.0
2,2-Dichloropropane	Lin2		0.7086		8.92	10.0	-10.8	50.0
sec-Butyl Alcohol	Ave	1.790	1.565		262	300	-12.5	50.0
Bromochloromethane	Ave	0.1857	0.1909		10.3	10.0	2.8	50.0
Tetrahydrofuran	Ave	0.0516	0.0546		21.1	20.0	5.7	50.0
Chloroform	Ave	0.8281	0.8389		10.1	10.0	1.3	50.0
1,1,1-Trichloroethane	Ave	0.7908	0.7973		10.1	10.0	0.8	50.0
Cyclohexane	Ave	0.8724	0.8602		9.86	10.0	-1.4	50.0
1,1-Dichloropropene	Ave	0.7089	0.6673		9.41	10.0	-5.9	50.0
Carbon tetrachloride	Ave	0.7352	0.7231		9.83	10.0	-1.7	50.0
Isobutyl alcohol	Ave	0.6270	0.6378		254	250	1.7	50.0
Benzene	Ave	1.309	1.347		10.3	10.0	2.9	50.0
1,2-Dichloroethane	Ave	0.3956	0.4120		10.4	10.0	4.2	50.0
Trichloroethene	Ave	0.5325	0.5419		10.2	10.0	1.8	50.0
2-Pentanone	Ave	0.1989	0.2015		40.5	40.0	1.3	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Lab Sample ID: CCVC 280-281475/33 Calibration Date: 06/12/2015 06:08
 Instrument ID: VMS_H Calib Start Date: 05/28/2015 00:18
 GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 05/28/2015 05:10
 Lab File ID: H3619.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.7772	0.7717		9.93	10.0	-0.7	50.0
1,2-Dichloropropane	Ave	0.5231	0.5329		10.2	10.0	1.9	50.0
Dibromomethane	Ave	0.2607	0.2666		10.2	10.0	2.3	50.0
1,4-Dioxane	Lin2		0.0017		222	200	11.1	50.0
Bromodichloromethane	Ave	0.7613	0.7847		10.3	10.0	3.1	50.0
2-Chloroethyl vinyl ether	Ave	0.0935	0.0963		10.3	10.0	3.0	50.0
cis-1,3-Dichloropropene	Ave	2.945	2.889		9.81	10.0	-1.9	50.0
4-Methyl-2-pentanone (MIBK)	Lin1		0.3005		45.2	40.0	13.0	50.0
Toluene	Ave	1.501	1.474		9.82	10.0	-1.8	50.0
trans-1,3-Dichloropropene	Ave	0.4794	0.4560		9.51	10.0	-4.9	50.0
Ethyl methacrylate	Ave	1.808	1.760		9.74	10.0	-2.6	50.0
1,1,2-Trichloroethane	Ave	0.3008	0.2955		9.82	10.0	-1.8	50.0
Tetrachloroethene	Ave	2.034	1.913		9.41	10.0	-5.9	50.0
1,3-Dichloropropane	Ave	2.292	2.231		9.73	10.0	-2.7	50.0
2-Hexanone	Lin1		0.8427		40.6	40.0	1.5	50.0
Chlorodibromomethane	Ave	2.231	2.264		10.1	10.0	1.5	50.0
1,2-Dibromoethane	Ave	1.573	1.559		9.91	10.0	-0.9	50.0
1-Chlorohexane	Ave	3.436	3.064		8.92	10.0	-10.8	50.0
Chlorobenzene	Ave	4.483	4.332	0.3000	9.66	10.0	-3.4	50.0
1,1,1,2-Tetrachloroethane	Ave	2.164	2.132		9.85	10.0	-1.5	50.0
Ethylbenzene	Ave	2.285	2.167		9.48	10.0	-5.2	50.0
m-Xylene & p-Xylene	Ave	3.107	2.948		9.49	10.0	-5.1	50.0
o-Xylene	Ave	2.726	2.599		9.53	10.0	-4.7	50.0
Styrene	Ave	4.408	4.270		9.69	10.0	-3.1	50.0
Bromoform	Ave	1.204	1.225	0.1000	10.2	10.0	1.7	50.0
Isopropylbenzene	Ave	5.356	4.684		8.75	10.0	-12.5	50.0
Cyclohexanone	Lin1		0.0304		439	400	9.8	50.0
1,1,2,2-Tetrachloroethane	Ave	1.115	1.018	0.3000	9.13	10.0	-8.7	50.0
Bromobenzene	Ave	1.235	1.139		9.22	10.0	-7.8	50.0
1,2,3-Trichloropropane	Ave	0.2607	0.2343		8.99	10.0	-10.1	50.0
trans-1,4-Dichloro-2-buten e	Ave	0.2926	0.2413		8.25	10.0	-17.5	50.0
N-Propylbenzene	Ave	1.311	1.122		8.56	10.0	-14.4	50.0
2-Chlorotoluene	Ave	1.016	0.8831		8.69	10.0	-13.1	50.0
1,3,5-Trimethylbenzene	Ave	4.052	3.521		8.69	10.0	-13.1	50.0
4-Chlorotoluene	Ave	1.313	1.195		9.11	10.0	-8.9	50.0
tert-Butylbenzene	Ave	4.395	3.819		8.69	10.0	-13.1	50.0
1,2,4-Trimethylbenzene	Ave	3.849	3.362		8.74	10.0	-12.6	50.0
sec-Butylbenzene	Ave	1.160	1.007		8.68	10.0	-13.2	50.0
1,3-Dichlorobenzene	Ave	1.876	1.589		8.47	10.0	-15.3	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Lab Sample ID: CCVC 280-281475/33 Calibration Date: 06/12/2015 06:08
 Instrument ID: VMS_H Calib Start Date: 05/28/2015 00:18
 GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 05/28/2015 05:10
 Lab File ID: H3619.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
p-Isopropyltoluene	Ave	4.989	4.371		8.76	10.0	-12.4	50.0
1,4-Dichlorobenzene	Ave	2.898	2.624		9.05	10.0	-9.5	50.0
n-Butylbenzene	Ave	5.241	4.464		8.52	10.0	-14.8	50.0
1,2-Dichlorobenzene	Ave	1.969	1.790		9.09	10.0	-9.1	50.0
1,2-Dibromo-3-Chloropropane	Ave	0.1839	0.1773		9.64	10.0	-3.6	50.0
1,2,4-Trichlorobenzene	Ave	1.323	1.176		8.89	10.0	-11.1	50.0
Hexachlorobutadiene	Ave	1.379	1.168		8.47	10.0	-15.3	50.0
Naphthalene	Ave	1.505	1.432		9.51	10.0	-4.9	50.0
1,2,3-Trichlorobenzene	Ave	1.042	0.9370		8.99	10.0	-10.1	50.0
Dibromofluoromethane (Surr)	Ave	0.6313	0.6798		9.15	8.50	7.7	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3497	0.3918		9.52	8.50	12.0	50.0
Toluene-d8 (Surr)	Ave	6.098	6.685		9.32	8.50	9.6	50.0
4-Bromofluorobenzene (Surr)	Ave	2.139	2.012		7.99	8.50	-5.9	50.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150611-35960.b\H3619.D
 Lims ID: CCVC
 Client ID:
 Sample Type: CCVC
 Inject. Date: 12-Jun-2015 06:08:30 ALS Bottle#: 30 Worklist Smp#: 33
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: CCVC
 Operator ID: bergerb Instrument ID: VMS_H
 Sublist: chrom-AQ_VMSH_8260*sub70
 Method: \\Denchrom\ChromData\VMS_H\20150611-35960.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 12-Jun-2015 11:34:32 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK002

First Level Reviewer: bergerb

Date: 12-Jun-2015 11:34:32

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.987	3.987	0.000	97	233324	250.0	250.0	
* 2 Fluorobenzene	96	6.772	6.772	0.000	97	1099614	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.107	11.107	0.000	94	252176	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.119	14.119	0.000	97	439190	12.5	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.937	5.937	0.000	92	508295	8.50	9.15	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	6.355	6.355	0.000	83	292933	8.50	9.52	
\$ 10 Toluene-d8 (Surr)	98	8.879	8.879	0.000	95	1146406	8.50	9.32	
\$ 11 4-Bromofluorobenzene (Surr	95	12.761	12.761	0.000	80	600959	8.50	7.99	
28 Dichlorodifluoromethane	85	2.176	2.176	0.000	100	517755	10.0	9.77	
30 Chloromethane	50	2.263	2.263	0.000	100	332148	10.0	9.70	
31 Butadiene	54	2.385	2.385	0.000	0	238259	NC	NC	
32 Vinyl chloride	62	2.403	2.403	0.000	98	312176	10.0	9.32	
35 Bromomethane	94	2.681	2.681	0.000	91	260810	10.0	9.38	
36 Chloroethane	64	2.751	2.751	0.000	100	196674	10.0	9.66	
37 Dichlorofluoromethane	67	2.942	2.942	0.000	98	773777	10.0	10.5	
38 Trichlorofluoromethane	101	2.995	2.995	0.000	98	659013	10.0	9.98	
40 Ethyl ether	59	3.221	3.221	0.000	95	184161	10.0	10.6	
44 Acrolein	56	3.378	3.378	0.000	98	67356	100.0	56.0	
45 1,1-Dichloroethene	96	3.482	3.482	0.000	94	318275	10.0	9.69	
47 Acetone	43	3.517	3.517	0.000	40	136324	40.0	39.8	
46 1,1,2-Trichloro-1,2,2-trif	151	3.517	3.517	0.000	97	439915	10.0	9.83	
48 Iodomethane	142	3.656	3.656	0.000	99	735655	10.0	9.95	
50 Carbon disulfide	76	3.726	3.726	0.000	100	1204368	10.0	9.51	
53 Methyl acetate	43	3.830	3.830	0.000	98	603424	50.0	54.5	
52 3-Chloro-1-propene	41	3.830	3.830	0.000	92	737159	10.0	9.67	
54 Methylene Chloride	84	3.952	3.952	0.000	98	296613	10.0	10.2	
55 2-Methyl-2-propanol	59	4.074	4.074	0.000	92	110232	100.0	97.0	
57 Acrylonitrile	53	4.213	4.213	0.000	99	301218	100.0	105.1	
58 trans-1,2-Dichloroethene	96	4.248	4.248	0.000	94	358008	10.0	9.69	
56 Methyl tert-butyl ether	73	4.248	4.248	0.000	98	651904	10.0	10.4	
59 Hexane	57	4.509	4.509	0.000	94	592694	10.0	8.76	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
60 1,1-Dichloroethane	63	4.701	4.701	0.000	96	770812	10.0	9.88	
61 Vinyl acetate	43	4.718	4.718	0.000	96	904822	20.0	18.7	
67 2-Butanone (MEK)	43	5.362	5.362	0.000	51	287623	40.0	45.6	
65 cis-1,2-Dichloroethene	96	5.362	5.362	0.000	88	375643	10.0	10.1	
66 2,2-Dichloropropane	77	5.380	5.380	0.000	90	623385	10.0	8.92	
71 sec-Butyl Alcohol	45	5.589	5.589	0.000	97	438320	300.0	262.4	
73 Chlorobromomethane	128	5.658	5.658	0.000	90	167932	10.0	10.3	
74 Tetrahydrofuran	42	5.710	5.710	0.000	42	95993	20.0	21.1	
75 Chloroform	83	5.728	5.728	0.000	98	737971	10.0	10.1	
76 1,1,1-Trichloroethane	97	5.989	5.989	0.000	97	701376	10.0	10.1	
77 Cyclohexane	56	6.059	6.059	0.000	95	756710	10.0	9.86	
78 1,1-Dichloropropene	75	6.163	6.163	0.000	91	587011	10.0	9.41	
79 Carbon tetrachloride	117	6.180	6.180	0.000	98	636076	10.0	9.83	
80 Isobutyl alcohol	41	6.302	6.302	0.000	92	148809	250.0	254.3	
81 Benzene	78	6.424	6.424	0.000	98	1184903	10.0	10.3	
82 1,2-Dichloroethane	62	6.442	6.442	0.000	96	362464	10.0	10.4	
84 n-Heptane	43	6.720	6.720	0.000	97	979333	10.0	9.60	
86 Trichloroethene	95	7.242	7.242	0.000	97	476713	10.0	10.2	
88 2-Pentanone	43	7.469	7.469	0.000	96	709037	40.0	40.5	
89 Methylcyclohexane	55	7.504	7.504	0.000	91	678895	10.0	9.93	
90 1,2-Dichloropropane	63	7.538	7.538	0.000	95	468823	10.0	10.2	
92 Dibromomethane	93	7.695	7.695	0.000	92	234522	10.0	10.2	
93 1,4-Dioxane	88	7.730	7.730	0.000	31	29015	200.0	222.2	
94 Dichlorobromomethane	83	7.904	7.904	0.000	98	690303	10.0	10.3	
96 2-Chloroethyl vinyl ether	63	8.304	8.304	0.000	88	84677	10.0	10.3	
97 cis-1,3-Dichloropropene	75	8.496	8.496	0.000	91	582900	10.0	9.81	
98 4-Methyl-2-pentanone (MIBK)	43	8.722	8.722	0.000	97	1057368	40.0	45.2	
99 Toluene	91	8.983	8.983	0.000	97	1296694	10.0	9.82	
100 trans-1,3-Dichloropropene	75	9.279	9.279	0.000	99	401135	10.0	9.51	
101 Ethyl methacrylate	69	9.419	9.419	0.000	96	355047	10.0	9.74	
102 1,1,2-Trichloroethane	97	9.558	9.558	0.000	93	259954	10.0	9.82	
103 Tetrachloroethene	164	9.767	9.767	0.000	94	385963	10.0	9.41	
104 1,3-Dichloropropane	76	9.802	9.802	0.000	95	450066	10.0	9.73	
105 2-Hexanone	43	9.924	9.924	0.000	98	680022	40.0	40.6	
108 Chlorodibromomethane	129	10.150	10.150	0.000	90	456795	10.0	10.1	
109 Ethylene Dibromide	107	10.341	10.341	0.000	98	314511	10.0	9.91	
110 1-Chlorohexane	91	11.125	11.125	0.000	91	618087	10.0	8.92	
111 Chlorobenzene	112	11.160	11.160	0.000	88	873883	10.0	9.66	
112 1,1,1,2-Tetrachloroethane	131	11.281	11.281	0.000	94	430050	10.0	9.85	
113 Ethylbenzene	106	11.334	11.334	0.000	99	437196	10.0	9.48	
114 m-Xylene & p-Xylene	106	11.508	11.508	0.000	97	594673	10.0	9.49	
115 o-Xylene	106	12.082	12.082	0.000	99	524337	10.0	9.53	
116 Styrene	104	12.100	12.100	0.000	93	861493	10.0	9.69	
117 Bromoform	173	12.343	12.343	0.000	94	247038	10.0	10.2	
118 Isopropylbenzene	105	12.570	12.570	0.000	97	1645791	10.0	8.75	
120 Cyclohexanone	55	12.692	12.692	0.000	95	245153	400.0	439.1	
122 Bromobenzene	156	12.953	12.953	0.000	94	400285	10.0	9.22	
121 1,1,2,2-Tetrachloroethane	83	12.953	12.953	0.000	94	357713	10.0	9.13	
123 1,2,3-Trichloropropane	110	13.005	13.005	0.000	79	82314	10.0	8.99	
124 trans-1,4-Dichloro-2-buten	53	13.022	13.022	0.000	72	84766	10.0	8.25	
125 N-Propylbenzene	120	13.092	13.092	0.000	99	394231	10.0	8.56	
126 2-Chlorotoluene	126	13.179	13.179	0.000	96	310263	10.0	8.69	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
127 1,3,5-Trimethylbenzene	105	13.301	13.301	0.000	94	1237013	10.0	8.69	
128 4-Chlorotoluene	126	13.318	13.318	0.000	99	420038	10.0	9.11	
129 tert-Butylbenzene	119	13.684	13.684	0.000	94	1341897	10.0	8.69	
130 1,2,4-Trimethylbenzene	105	13.736	13.736	0.000	95	1181251	10.0	8.74	
131 sec-Butylbenzene	134	13.928	13.928	0.000	95	353983	10.0	8.68	
132 1,3-Dichlorobenzene	146	14.050	14.050	0.000	95	558192	10.0	8.47	
133 4-Isopropyltoluene	119	14.084	14.084	0.000	98	1535774	10.0	8.76	
134 1,4-Dichlorobenzene	146	14.137	14.137	0.000	92	922045	10.0	9.05	
137 n-Butylbenzene	91	14.520	14.520	0.000	99	1568459	10.0	8.52	
138 1,2-Dichlorobenzene	146	14.537	14.537	0.000	95	628999	10.0	9.09	
139 1,2-Dibromo-3-Chloropropan	157	15.303	15.303	0.000	77	62306	10.0	9.64	
141 1,2,4-Trichlorobenzene	180	16.087	16.087	0.000	93	413341	10.0	8.89	
142 Hexachlorobutadiene	225	16.226	16.226	0.000	97	410329	10.0	8.47	
143 Naphthalene	128	16.313	16.313	0.000	97	503213	10.0	9.51	
144 1,2,3-Trichlorobenzene	180	16.539	16.539	0.000	94	329215	10.0	8.99	
S 151 1,2-Dichloroethene, Total	96				0		20.0	19.8	
S 145 Trihalomethanes, Total	1				0		40.0	40.8	
S 146 Xylenes, Total (URS)	1				0		20.0	19.0	
S 147 Total BTEX	1				0			48.6	
S 148 1,3-Dichloropropene, Total	1				0		20.0	19.3	
S 149 1,2-Dichloroethene, Total	1				0		20.0	19.8	
S 150 Xylenes, Total	106				0		20.0	19.0	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

MV-Main A_00022	Amount Added: 5.00	Units: uL	
MV-Gas/Ket A_00033	Amount Added: 5.00	Units: uL	
MV-2cleve+AVA_00010	Amount Added: 5.00	Units: uL	
MV-568718-D_00002	Amount Added: 1.00	Units: uL	Run Reagent
MV-ARCH SS A_00042	Amount Added: 0.68	Units: uL	Run Reagent

Data File: \\Denchrom\ChromData\VMS_H\20150611-35960.b\H3619.D

Injection Date: 12-Jun-2015 06:08:30

Instrument ID: VMS_H

Operator ID: bergerb

Lims ID: CCVC

Worklist Smp#: 33

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

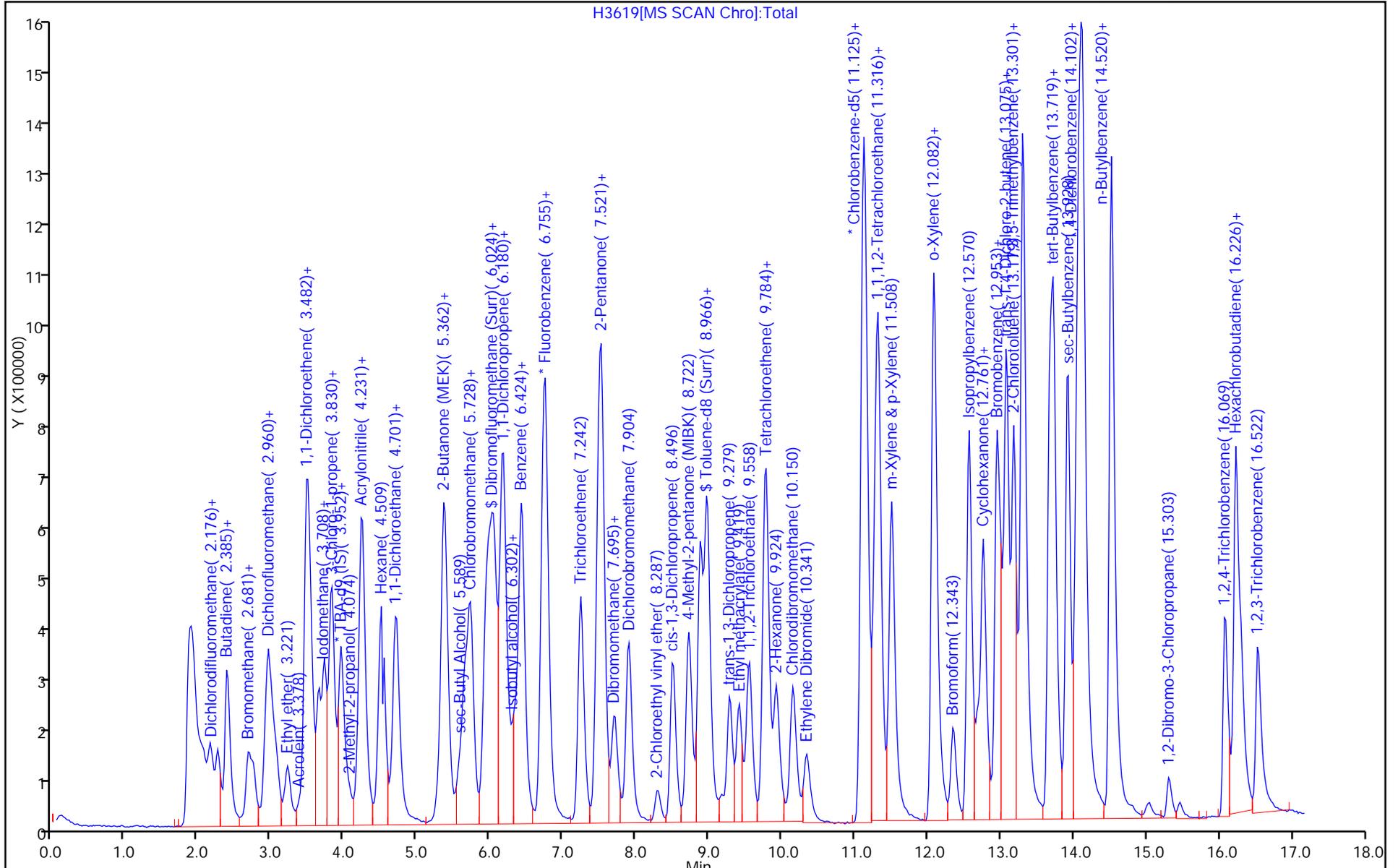
ALS Bottle#: 30

Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Lab Sample ID: ICV 280-279871/22 Calibration Date: 06/01/2015 22:30
 Instrument ID: VMS_Z Calib Start Date: 04/06/2015 23:25
 GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 04/07/2015 01:41
 Lab File ID: Z8227.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Lin2		0.0007			200		20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8227.D
 Lims ID: ICV
 Client ID:
 Sample Type: ICV
 Inject. Date: 01-Jun-2015 22:30:30 ALS Bottle#: 9 Worklist Smp#: 22
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: icv
 Operator ID: bergerb Instrument ID: VMS_Z
 Sublist:
 Method: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\AQ_VMSZ_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 02-Jun-2015 02:21:07 Calib Date: 02-Jun-2015 01:06:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8233.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK021

First Level Reviewer: bergerb

Date: 02-Jun-2015 01:53:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.484	3.468	0.016	87	155997	250.0	250.0	
* 2 Fluorobenzene	96	6.374	6.375	-0.001	98	886535	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.021	11.023	-0.002	86	216022	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.112	15.113	-0.001	92	345055	12.5	12.5	
40 Ethyl ether	59	2.788	2.806	-0.018	93	98408	10.0	8.58	
44 Acrolein	56	2.892	2.910	-0.018	99	59620	100.0	116.6	
45 1,1-Dichloroethene	96	3.031	3.032	-0.001	97	233503	10.0	9.75	
46 1,1,2-Trichloro-1,2,2-trif	151	3.084	3.084	0.000	96	341010	10.0	9.28	
49 Iodomethane	142	3.188	3.189	-0.001	100	623100	10.0	9.59	
50 Carbon disulfide	76	3.258	3.276	-0.018	98	870799	10.0	9.36	
52 3-Chloro-1-propene	41	3.345	3.345	0.000	86	326995	10.0	8.60	
51 Methyl acetate	43	3.345	3.345	0.000	74	240416	50.0	43.6	
54 Methylene Chloride	84	3.449	3.450	-0.001	95	199273	10.0	9.33	
55 2-Methyl-2-propanol	59	3.571	3.572	-0.001	91	46686	100.0	106.1	
58 Acrylonitrile	53	3.675	3.676	-0.001	98	159892	100.0	93.4	
57 trans-1,2-Dichloroethene	96	3.745	3.763	-0.018	98	260938	10.0	9.90	
56 Methyl tert-butyl ether	73	3.780	3.781	-0.001	95	328472	10.0	9.30	
59 Hexane	57	4.058	4.059	-0.001	87	353265	10.0	9.21	
62 1,1-Dichloroethane	63	4.180	4.198	-0.018	96	458616	10.0	9.32	
61 Vinyl acetate	43	4.215	4.216	-0.001	96	530338	20.0	20.9	
65 cis-1,2-Dichloroethene	96	4.859	4.877	-0.018	85	247273	10.0	9.54	
66 2,2-Dichloropropane	77	4.894	4.895	-0.001	85	428111	10.0	9.69	
70 sec-Butyl Alcohol	45	5.103	5.104	-0.001	96	155417	300.0	294.7	
71 Chlorobromomethane	128	5.172	5.173	-0.001	94	125018	10.0	9.38	
72 Tetrahydrofuran	42	5.242	5.260	-0.018	63	31865	20.0	18.4	
74 Chloroform	83	5.260	5.260	0.000	93	437118	10.0	9.52	
75 1,1,1-Trichloroethane	97	5.538	5.539	-0.001	98	423880	10.0	9.77	
76 Cyclohexane	56	5.642	5.643	-0.001	88	399370	10.0	9.70	
78 1,1-Dichloropropene	75	5.747	5.748	-0.001	98	397270	10.0	10.2	
77 Carbon tetrachloride	117	5.782	5.782	0.000	97	458519	10.0	9.83	
80 Isobutyl alcohol	41	5.851	5.869	-0.018	94	50784	250.0	268.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
82 1,2-Dichloroethane	62	6.008	6.009	-0.001	90	165981	10.0	8.60	
81 Benzene	78	6.008	6.009	-0.001	96	664404	10.0	9.73	
84 n-Heptane	43	6.408	6.409	-0.001	91	411685	10.0	9.59	
85 Trichloroethene	95	6.896	6.896	0.000	97	312982	10.0	9.91	
89 2-Pentanone	43	7.139	7.140	-0.001	99	220630	40.0	34.8	
90 1,2-Dichloropropane	63	7.192	7.210	-0.018	96	247950	10.0	8.94	
87 Methylcyclohexane	55	7.209	7.227	-0.018	92	338236	10.0	9.48	
92 Dibromomethane	93	7.366	7.366	0.000	95	139314	10.0	9.13	
93 1,4-Dioxane	88	7.435	7.434	0.001	83	10311	NC	NC	
94 Dichlorobromomethane	83	7.592	7.610	-0.018	100	373576	10.0	9.58	
96 2-Chloroethyl vinyl ether	63	8.045	8.063	-0.018	91	91543	10.0	9.76	
97 cis-1,3-Dichloropropene	75	8.271	8.272	-0.001	98	330429	10.0	9.39	
99 Toluene	91	8.811	8.811	0.000	98	719354	10.0	9.30	
100 trans-1,3-Dichloropropene	75	9.124	9.125	-0.001	91	242731	10.0	10.2	
101 Ethyl methacrylate	69	9.315	9.333	-0.018	86	175555	10.0	8.46	
102 1,1,2-Trichloroethane	97	9.420	9.420	0.000	90	137328	10.0	9.44	
104 1,3-Dichloropropane	76	9.681	9.682	-0.001	89	223865	10.0	8.88	
103 Tetrachloroethene	164	9.698	9.699	-0.001	97	302586	10.0	9.96	
107 Chlorodibromomethane	129	10.046	10.065	-0.019	90	292450	10.0	9.39	
109 Ethylene Dibromide	107	10.238	10.239	-0.001	99	197616	10.0	9.19	
110 1-Chlorohexane	91	11.056	11.074	-0.018	79	357677	10.0	9.22	
111 Chlorobenzene	112	11.056	11.074	-0.018	93	552262	10.0	9.64	
113 1,1,1,2-Tetrachloroethane	131	11.213	11.213	0.000	97	268543	10.0	9.50	
112 Ethylbenzene	106	11.282	11.283	-0.001	98	265457	10.0	9.68	
114 m-Xylene & p-Xylene	106	11.474	11.475	0.000	98	356164	10.0	9.67	
115 o-Xylene	106	12.153	12.153	0.000	97	303005	10.0	9.35	
116 Styrene	104	12.170	12.171	-0.001	93	493588	10.0	9.31	
117 Bromoform	173	12.466	12.467	-0.001	97	172105	10.0	9.58	
118 Isopropylbenzene	105	12.814	12.815	-0.001	96	979017	10.0	9.54	
121 Bromobenzene	156	13.302	13.302	0.000	93	260984	10.0	10.0	
122 1,1,2,2-Tetrachloroethane	83	13.302	13.320	-0.018	95	179937	10.0	9.40	
124 1,2,3-Trichloropropane	110	13.371	13.372	-0.001	80	47002	10.0	8.92	
125 trans-1,4-Dichloro-2-buten	53	13.423	13.407	0.016	90	40182	10.0	10.9	
123 N-Propylbenzene	120	13.545	13.546	-0.001	99	260035	10.0	9.86	
126 2-Chlorotoluene	126	13.650	13.668	-0.018	78	216643	10.0	9.88	a
128 4-Chlorotoluene	126	13.859	13.859	0.000	98	245155	10.0	9.63	
127 1,3,5-Trimethylbenzene	105	13.876	13.877	-0.001	95	746417	10.0	9.62	
129 tert-Butylbenzene	119	14.450	14.451	-0.001	95	862229	10.0	10.0	
130 1,2,4-Trimethylbenzene	105	14.537	14.538	-0.001	95	724974	10.0	9.57	
131 sec-Butylbenzene	134	14.851	14.851	0.000	94	226810	10.0	10.1	
132 1,3-Dichlorobenzene	146	14.990	15.008	-0.018	96	435487	10.0	9.91	
133 4-Isopropyltoluene	119	15.129	15.130	-0.001	97	967410	10.0	9.98	
134 1,4-Dichlorobenzene	146	15.164	15.165	-0.001	94	528626	10.0	10.1	
138 1,2-Dichlorobenzene	146	15.808	15.809	-0.001	96	385038	10.0	10.0	
137 n-Butylbenzene	91	15.843	15.844	-0.001	97	894247	10.0	10.4	
139 1,2-Dibromo-3-Chloropropan	157	16.922	16.923	-0.001	90	37371	10.0	10.0	
141 1,2,4-Trichlorobenzene	180	17.862	17.863	-0.001	94	328942	10.0	11.6	
142 Hexachlorobutadiene	225	18.071	18.072	-0.001	98	305498	10.0	11.6	
143 Naphthalene	128	18.088	18.089	-0.001	97	316630	10.0	11.9	
144 1,2,3-Trichlorobenzene	180	18.350	18.350	0.000	95	256007	10.0	11.7	
S 149 Trihalomethanes, Total	1				0		40.0	38.1	
S 150 Xylenes, Total (URS)	1				0		20.0	19.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
S 148 1,3-Dichloropropene, Total	1				0		20.0	19.6	
S 145 1,2-Dichloroethene, Total	1				0		20.0	19.4	
S 146 Xylenes, Total	106				0		20.0	19.0	
S 147 1,2-Dichloroethene, Total	96				0		20.0	19.4	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

a - User Assigned ID

Reagents:

MV-567649-D_00001	Amount Added: 1.00	Units: uL
MV-Main B_00010	Amount Added: 5.00	Units: uL
MV-SS 2-Cleve_00021	Amount Added: 5.00	Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8227.D

Injection Date: 01-Jun-2015 22:30:30

Instrument ID: VMS_Z

Operator ID: bergerb

Lims ID: ICV

Worklist Smp#: 22

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

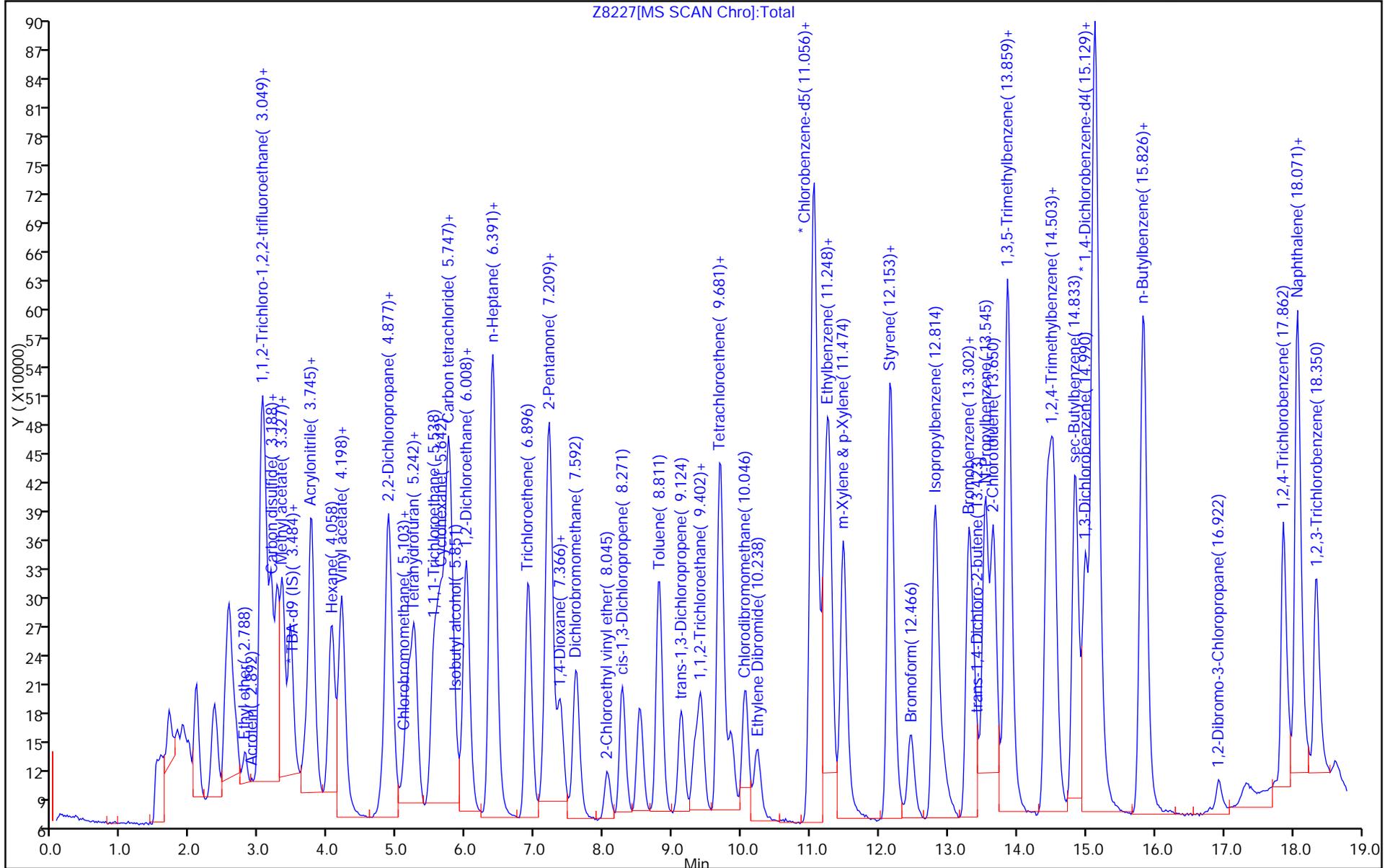
ALS Bottle#: 9

Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Lab Sample ID: ICV 280-279871/22 Calibration Date: 06/01/2015 22:30
 Instrument ID: VMS_Z Calib Start Date: 06/01/2015 19:51
 GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 06/02/2015 01:06
 Lab File ID: Z8227.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethyl ether	Ave	0.1616	0.1388		8.58	10.0	-14.2	20.0
Acrolein	Lin1		0.0084		117	100	16.6	20.0
1,1-Dichloroethene	Ave	0.3376	0.3292		9.75	10.0	-2.5	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.5179	0.4808		9.28	10.0	-7.2	20.0
Iodomethane	Ave	0.9161	0.8786		9.59	10.0	-4.1	20.0
Carbon disulfide	Ave	1.312	1.228		9.36	10.0	-6.4	20.0
3-Chloro-1-propene	Ave	0.5363	0.4611		8.60	10.0	-14.0	20.0
Methyl acetate	Ave	0.0777	0.0678		43.6	50.0	-12.8	20.0
Methylene Chloride	Ave	0.3011	0.2810		9.33	10.0	-6.7	20.0
tert-Butyl alcohol	Ave	0.7050	0.7482		106	100	6.1	20.0
Acrylonitrile	Ave	0.0241	0.0225		93.4	100	-6.6	20.0
trans-1,2-Dichloroethene	Ave	0.3717	0.3679		9.90	10.0	-1.0	20.0
Methyl tert-butyl ether	Ave	0.4982	0.4631		9.30	10.0	-7.0	20.0
Hexane	Ave	2.220	2.044		9.21	10.0	-7.9	20.0
1,1-Dichloroethane	Ave	0.6940	0.6466	0.1000	9.32	10.0	-6.8	20.0
Vinyl acetate	Ave	0.3571	0.3739		20.9	20.0	4.7	20.0
cis-1,2-Dichloroethene	Ave	0.3655	0.3487		9.54	10.0	-4.6	20.0
2,2-Dichloropropane	Lin2		0.6036		9.69	10.0	-3.1	20.0
sec-Butyl Alcohol	Ave	0.8452	0.8302		295	300	-1.8	20.0
Bromochloromethane	Ave	0.1879	0.1763		9.38	10.0	-6.2	20.0
Tetrahydrofuran	Ave	0.0244	0.0225		18.4	20.0	-8.1	20.0
Chloroform	Ave	0.6477	0.6163		9.52	10.0	-4.8	20.0
1,1,1-Trichloroethane	Ave	0.6114	0.5977		9.77	10.0	-2.3	20.0
Cyclohexane	Ave	0.5805	0.5631		9.70	10.0	-3.0	20.0
1,1-Dichloropropene	Ave	0.5506	0.5601		10.2	10.0	1.7	20.0
Carbon tetrachloride	Ave	0.6578	0.6465		9.83	10.0	-1.7	20.0
Isobutyl alcohol	Ave	0.3029	0.3255		269	250	7.5	20.0
1,2-Dichloroethane	Ave	0.2721	0.2340		8.60	10.0	-14.0	20.0
Benzene	Ave	0.9627	0.9368		9.73	10.0	-2.7	20.0
Trichloroethene	Ave	0.4452	0.4413		9.91	10.0	-0.9	20.0
2-Pentanone	Ave	0.0895	0.0778		34.8	40.0	-13.1	20.0
1,2-Dichloropropane	Ave	0.3913	0.3496		8.94	10.0	-10.6	20.0
Methylcyclohexane	Ave	0.5031	0.4769		9.48	10.0	-5.2	20.0
Dibromomethane	Ave	0.2151	0.1964		9.13	10.0	-8.7	20.0
Bromodichloromethane	Ave	0.5496	0.5267		9.58	10.0	-4.2	20.0
2-Chloroethyl vinyl ether	Ave	0.1323	0.1291		9.76	10.0	-2.4	20.0
cis-1,3-Dichloropropene	Ave	2.036	1.912		9.39	10.0	-6.1	20.0
Toluene	Ave	1.091	1.014		9.30	10.0	-7.0	20.0
trans-1,3-Dichloropropene	Ave	0.3360	0.3423		10.2	10.0	1.8	20.0
Ethyl methacrylate	Ave	1.201	1.016		8.46	10.0	-15.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Lab Sample ID: ICV 280-279871/22 Calibration Date: 06/01/2015 22:30
 Instrument ID: VMS_Z Calib Start Date: 06/01/2015 19:51
 GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 06/02/2015 01:06
 Lab File ID: Z8227.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1,2-Trichloroethane	Ave	0.2051	0.1936		9.44	10.0	-5.6	20.0
1,3-Dichloropropane	Ave	1.459	1.295		8.88	10.0	-11.2	20.0
Tetrachloroethene	Ave	1.759	1.751		9.96	10.0	-0.4	20.0
Chlorodibromomethane	Ave	1.802	1.692		9.39	10.0	-6.1	20.0
1,2-Dibromoethane	Ave	1.245	1.143		9.19	10.0	-8.1	20.0
1-Chlorohexane	Ave	2.245	2.070		9.22	10.0	-7.8	20.0
Chlorobenzene	Ave	3.316	3.196	0.3000	9.64	10.0	-3.6	20.0
1,1,1,2-Tetrachloroethane	Ave	1.635	1.554		9.50	10.0	-5.0	20.0
Ethylbenzene	Ave	1.587	1.536		9.68	10.0	-3.2	20.0
m-Xylene & p-Xylene	Ave	2.132	2.061		9.67	10.0	-3.3	20.0
o-Xylene	Ave	1.876	1.753		9.35	10.0	-6.5	20.0
Styrene	Ave	3.068	2.856		9.31	10.0	-6.9	20.0
Bromoform	Ave	1.039	0.996	0.1000	9.58	10.0	-4.2	20.0
Isopropylbenzene	Ave	3.719	3.547		9.54	10.0	-4.6	20.0
1,1,2,2-Tetrachloroethane	Ave	0.6936	0.6518	0.3000	9.40	10.0	-6.0	20.0
Bromobenzene	Ave	0.9443	0.9454		10.0	10.0	0.1	20.0
1,2,3-Trichloropropane	Ave	0.1909	0.1703		8.92	10.0	-10.8	20.0
trans-1,4-Dichloro-2-buten e	Ave	0.1329	0.1456		10.9	10.0	9.5	20.0
N-Propylbenzene	Ave	0.9554	0.9420		9.86	10.0	-1.4	20.0
2-Chlorotoluene	Ave	0.7943	0.7848		9.88	10.0	-1.2	20.0
4-Chlorotoluene	Ave	0.9219	0.8881		9.63	10.0	-3.7	20.0
1,3,5-Trimethylbenzene	Ave	2.812	2.704		9.62	10.0	-3.8	20.0
tert-Butylbenzene	Ave	3.111	3.124		10.0	10.0	0.4	20.0
1,2,4-Trimethylbenzene	Ave	2.746	2.626		9.57	10.0	-4.3	20.0
sec-Butylbenzene	Ave	0.8147	0.8216		10.1	10.0	0.9	20.0
1,3-Dichlorobenzene	Ave	1.591	1.578		9.91	10.0	-0.9	20.0
p-Isopropyltoluene	Ave	3.513	3.505		9.98	10.0	-0.2	20.0
1,4-Dichlorobenzene	Ave	1.896	1.915		10.1	10.0	1.0	20.0
1,2-Dichlorobenzene	Ave	1.394	1.395		10.0	10.0	0.0	20.0
n-Butylbenzene	Ave	3.121	3.240		10.4	10.0	3.8	20.0
1,2-Dibromo-3-Chloropropan e	Ave	0.1353	0.1354		10.0	10.0	0.0	20.0
1,2,4-Trichlorobenzene	Ave	1.031	1.192		11.6	10.0	15.6	20.0
Hexachlorobutadiene	Ave	0.9540	1.107		11.6	10.0	16.0	20.0
Naphthalene	Ave	0.9630	1.147		11.9	10.0	19.1	20.0
1,2,3-Trichlorobenzene	Ave	0.7901	0.9274		11.7	10.0	17.4	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8227.D
 Lims ID: ICV
 Client ID:
 Sample Type: ICV
 Inject. Date: 01-Jun-2015 22:30:30 ALS Bottle#: 9 Worklist Smp#: 22
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: icv
 Operator ID: bergerb Instrument ID: VMS_Z
 Sublist:
 Method: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\AQ_VMSZ_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 02-Jun-2015 02:21:07 Calib Date: 02-Jun-2015 01:06:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8233.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK021

First Level Reviewer: bergerb

Date: 02-Jun-2015 01:53:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.484	3.468	0.016	87	155997	250.0	250.0	
* 2 Fluorobenzene	96	6.374	6.375	-0.001	98	886535	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.021	11.023	-0.002	86	216022	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.112	15.113	-0.001	92	345055	12.5	12.5	
40 Ethyl ether	59	2.788	2.806	-0.018	93	98408	10.0	8.58	
44 Acrolein	56	2.892	2.910	-0.018	99	59620	100.0	116.6	
45 1,1-Dichloroethene	96	3.031	3.032	-0.001	97	233503	10.0	9.75	
46 1,1,2-Trichloro-1,2,2-trif	151	3.084	3.084	0.000	96	341010	10.0	9.28	
49 Iodomethane	142	3.188	3.189	-0.001	100	623100	10.0	9.59	
50 Carbon disulfide	76	3.258	3.276	-0.018	98	870799	10.0	9.36	
52 3-Chloro-1-propene	41	3.345	3.345	0.000	86	326995	10.0	8.60	
51 Methyl acetate	43	3.345	3.345	0.000	74	240416	50.0	43.6	
54 Methylene Chloride	84	3.449	3.450	-0.001	95	199273	10.0	9.33	
55 2-Methyl-2-propanol	59	3.571	3.572	-0.001	91	46686	100.0	106.1	
58 Acrylonitrile	53	3.675	3.676	-0.001	98	159892	100.0	93.4	
57 trans-1,2-Dichloroethene	96	3.745	3.763	-0.018	98	260938	10.0	9.90	
56 Methyl tert-butyl ether	73	3.780	3.781	-0.001	95	328472	10.0	9.30	
59 Hexane	57	4.058	4.059	-0.001	87	353265	10.0	9.21	
62 1,1-Dichloroethane	63	4.180	4.198	-0.018	96	458616	10.0	9.32	
61 Vinyl acetate	43	4.215	4.216	-0.001	96	530338	20.0	20.9	
65 cis-1,2-Dichloroethene	96	4.859	4.877	-0.018	85	247273	10.0	9.54	
66 2,2-Dichloropropane	77	4.894	4.895	-0.001	85	428111	10.0	9.69	
70 sec-Butyl Alcohol	45	5.103	5.104	-0.001	96	155417	300.0	294.7	
71 Chlorobromomethane	128	5.172	5.173	-0.001	94	125018	10.0	9.38	
72 Tetrahydrofuran	42	5.242	5.260	-0.018	63	31865	20.0	18.4	
74 Chloroform	83	5.260	5.260	0.000	93	437118	10.0	9.52	
75 1,1,1-Trichloroethane	97	5.538	5.539	-0.001	98	423880	10.0	9.77	
76 Cyclohexane	56	5.642	5.643	-0.001	88	399370	10.0	9.70	
78 1,1-Dichloropropene	75	5.747	5.748	-0.001	98	397270	10.0	10.2	
77 Carbon tetrachloride	117	5.782	5.782	0.000	97	458519	10.0	9.83	
80 Isobutyl alcohol	41	5.851	5.869	-0.018	94	50784	250.0	268.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
82 1,2-Dichloroethane	62	6.008	6.009	-0.001	90	165981	10.0	8.60	
81 Benzene	78	6.008	6.009	-0.001	96	664404	10.0	9.73	
84 n-Heptane	43	6.408	6.409	-0.001	91	411685	10.0	9.59	
85 Trichloroethene	95	6.896	6.896	0.000	97	312982	10.0	9.91	
89 2-Pentanone	43	7.139	7.140	-0.001	99	220630	40.0	34.8	
90 1,2-Dichloropropane	63	7.192	7.210	-0.018	96	247950	10.0	8.94	
87 Methylcyclohexane	55	7.209	7.227	-0.018	92	338236	10.0	9.48	
92 Dibromomethane	93	7.366	7.366	0.000	95	139314	10.0	9.13	
93 1,4-Dioxane	88	7.435	7.434	0.001	83	10311	NC	NC	
94 Dichlorobromomethane	83	7.592	7.610	-0.018	100	373576	10.0	9.58	
96 2-Chloroethyl vinyl ether	63	8.045	8.063	-0.018	91	91543	10.0	9.76	
97 cis-1,3-Dichloropropene	75	8.271	8.272	-0.001	98	330429	10.0	9.39	
99 Toluene	91	8.811	8.811	0.000	98	719354	10.0	9.30	
100 trans-1,3-Dichloropropene	75	9.124	9.125	-0.001	91	242731	10.0	10.2	
101 Ethyl methacrylate	69	9.315	9.333	-0.018	86	175555	10.0	8.46	
102 1,1,2-Trichloroethane	97	9.420	9.420	0.000	90	137328	10.0	9.44	
104 1,3-Dichloropropane	76	9.681	9.682	-0.001	89	223865	10.0	8.88	
103 Tetrachloroethene	164	9.698	9.699	-0.001	97	302586	10.0	9.96	
107 Chlorodibromomethane	129	10.046	10.065	-0.019	90	292450	10.0	9.39	
109 Ethylene Dibromide	107	10.238	10.239	-0.001	99	197616	10.0	9.19	
110 1-Chlorohexane	91	11.056	11.074	-0.018	79	357677	10.0	9.22	
111 Chlorobenzene	112	11.056	11.074	-0.018	93	552262	10.0	9.64	
113 1,1,1,2-Tetrachloroethane	131	11.213	11.213	0.000	97	268543	10.0	9.50	
112 Ethylbenzene	106	11.282	11.283	-0.001	98	265457	10.0	9.68	
114 m-Xylene & p-Xylene	106	11.474	11.475	0.000	98	356164	10.0	9.67	
115 o-Xylene	106	12.153	12.153	0.000	97	303005	10.0	9.35	
116 Styrene	104	12.170	12.171	-0.001	93	493588	10.0	9.31	
117 Bromoform	173	12.466	12.467	-0.001	97	172105	10.0	9.58	
118 Isopropylbenzene	105	12.814	12.815	-0.001	96	979017	10.0	9.54	
121 Bromobenzene	156	13.302	13.302	0.000	93	260984	10.0	10.0	
122 1,1,2,2-Tetrachloroethane	83	13.302	13.320	-0.018	95	179937	10.0	9.40	
124 1,2,3-Trichloropropane	110	13.371	13.372	-0.001	80	47002	10.0	8.92	
125 trans-1,4-Dichloro-2-buten	53	13.423	13.407	0.016	90	40182	10.0	10.9	
123 N-Propylbenzene	120	13.545	13.546	-0.001	99	260035	10.0	9.86	
126 2-Chlorotoluene	126	13.650	13.668	-0.018	78	216643	10.0	9.88	a
128 4-Chlorotoluene	126	13.859	13.859	0.000	98	245155	10.0	9.63	
127 1,3,5-Trimethylbenzene	105	13.876	13.877	-0.001	95	746417	10.0	9.62	
129 tert-Butylbenzene	119	14.450	14.451	-0.001	95	862229	10.0	10.0	
130 1,2,4-Trimethylbenzene	105	14.537	14.538	-0.001	95	724974	10.0	9.57	
131 sec-Butylbenzene	134	14.851	14.851	0.000	94	226810	10.0	10.1	
132 1,3-Dichlorobenzene	146	14.990	15.008	-0.018	96	435487	10.0	9.91	
133 4-Isopropyltoluene	119	15.129	15.130	-0.001	97	967410	10.0	9.98	
134 1,4-Dichlorobenzene	146	15.164	15.165	-0.001	94	528626	10.0	10.1	
138 1,2-Dichlorobenzene	146	15.808	15.809	-0.001	96	385038	10.0	10.0	
137 n-Butylbenzene	91	15.843	15.844	-0.001	97	894247	10.0	10.4	
139 1,2-Dibromo-3-Chloropropan	157	16.922	16.923	-0.001	90	37371	10.0	10.0	
141 1,2,4-Trichlorobenzene	180	17.862	17.863	-0.001	94	328942	10.0	11.6	
142 Hexachlorobutadiene	225	18.071	18.072	-0.001	98	305498	10.0	11.6	
143 Naphthalene	128	18.088	18.089	-0.001	97	316630	10.0	11.9	
144 1,2,3-Trichlorobenzene	180	18.350	18.350	0.000	95	256007	10.0	11.7	
S 149 Trihalomethanes, Total	1				0		40.0	38.1	
S 150 Xylenes, Total (URS)	1				0		20.0	19.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
S 148 1,3-Dichloropropene, Total	1				0		20.0	19.6	
S 145 1,2-Dichloroethene, Total	1				0		20.0	19.4	
S 146 Xylenes, Total	106				0		20.0	19.0	
S 147 1,2-Dichloroethene, Total	96				0		20.0	19.4	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

a - User Assigned ID

Reagents:

MV-567649-D_00001	Amount Added: 1.00	Units: uL
MV-Main B_00010	Amount Added: 5.00	Units: uL
MV-SS 2-Cleve_00021	Amount Added: 5.00	Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8227.D

Injection Date: 01-Jun-2015 22:30:30

Instrument ID: VMS_Z

Operator ID: bergerb

Lims ID: ICV

Worklist Smp#: 22

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

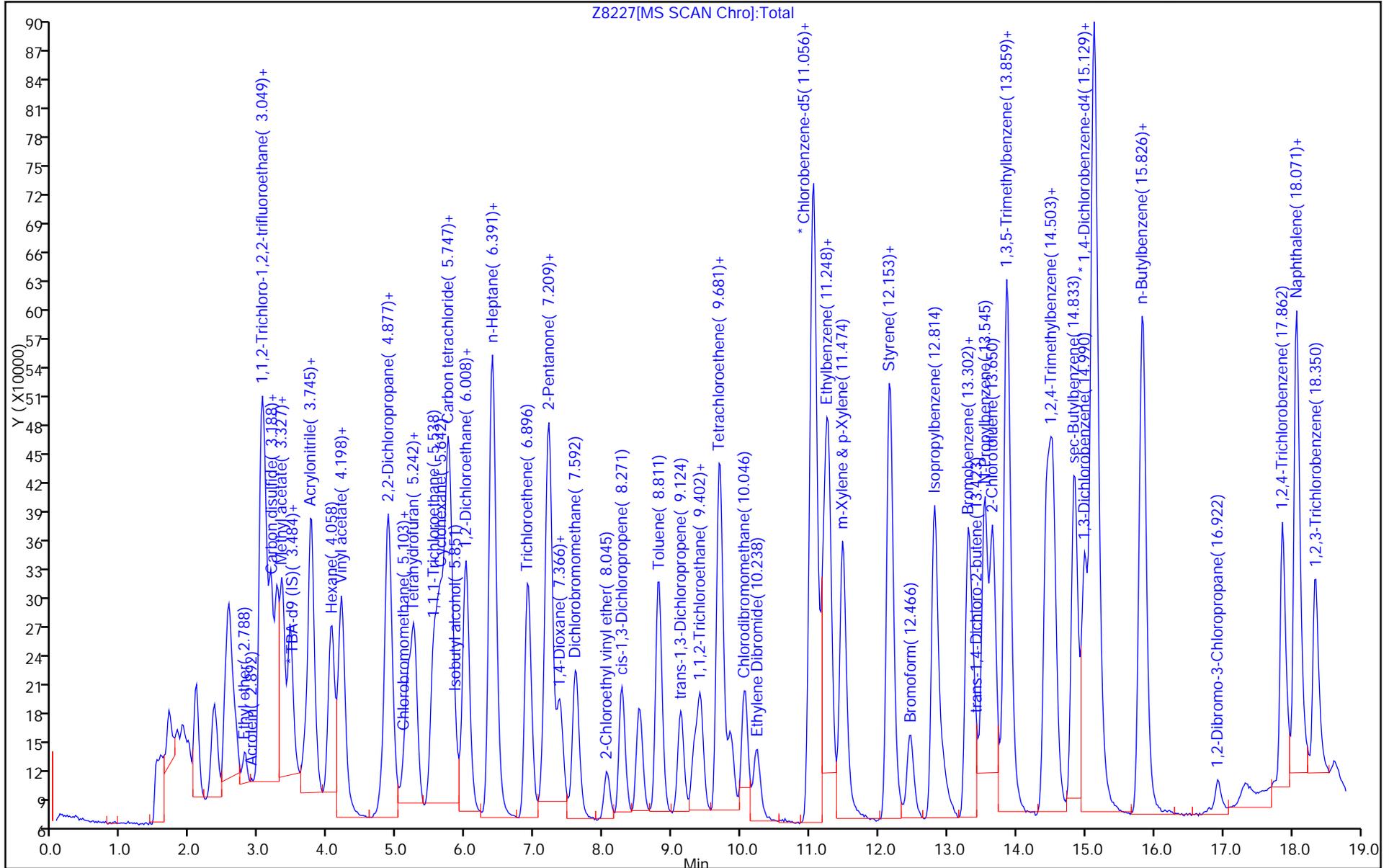
ALS Bottle#: 9

Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



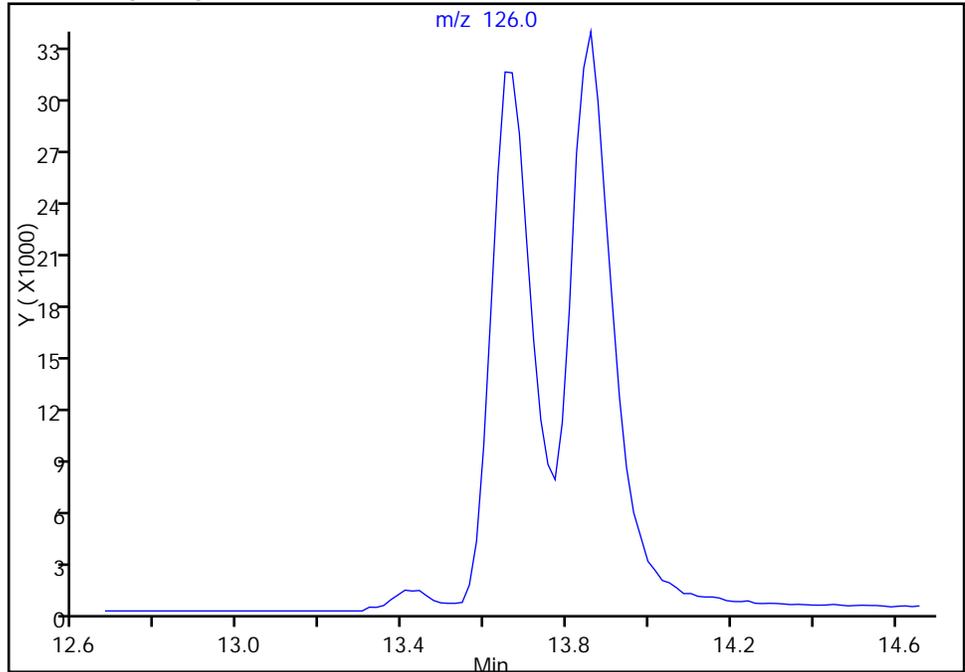
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8227.D
Injection Date: 01-Jun-2015 22:30:30 Instrument ID: VMS_Z
Lims ID: ICV
Client ID:
Operator ID: bergerb ALS Bottle#: 9 Worklist Smp#: 22
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

126 2-Chlorotoluene, CAS: 95-49-8

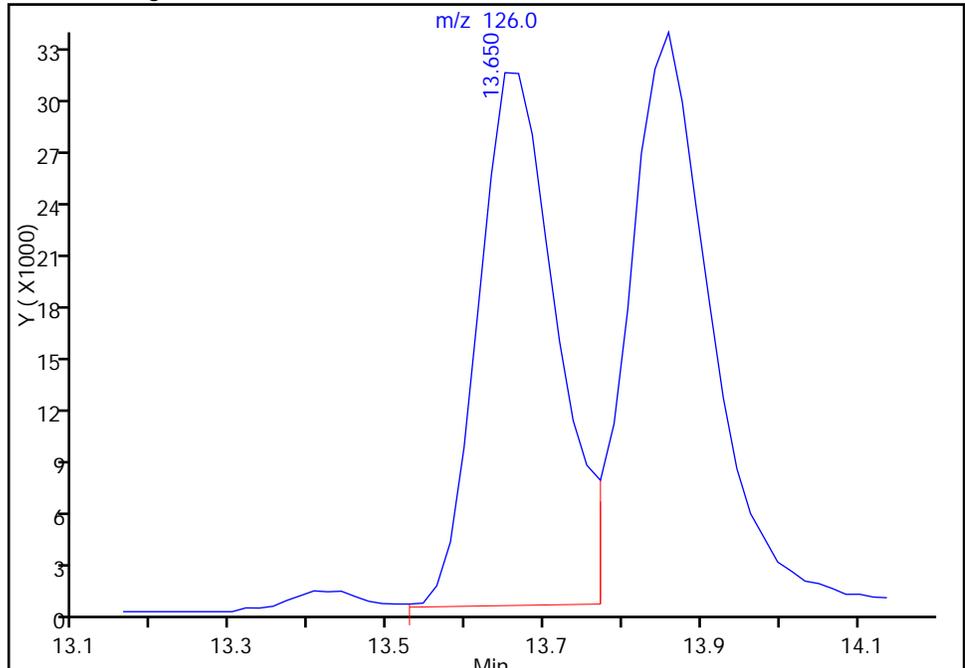
Not Detected
Expected RT: 13.67

Processing Integration Results



RT: 13.65
Area: 216643
Amount: 9.880769
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 02-Jun-2015 01:53:31
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Lab Sample ID: ICV 280-279871/23 Calibration Date: 06/02/2015 01:29
 Instrument ID: VMS_Z Calib Start Date: 06/01/2015 19:51
 GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 06/02/2015 01:06
 Lab File ID: Z8234.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Lin1		0.5828		11.6	10.0	16.4	20.0
Chloromethane	Lin2		0.3597	0.1000	10.7	10.0	6.8	20.0
Vinyl chloride	Ave	0.3427	0.3747		10.9	10.0	9.3	20.0
Bromomethane	Ave	0.3363	0.3549		10.6	10.0	5.5	20.0
Chloroethane	Ave	0.2135	0.2378		11.1	10.0	11.4	20.0
Dichlorofluoromethane	Ave	0.8126	0.8563		10.5	10.0	5.4	20.0
Trichlorofluoromethane	Ave	0.7478	0.7747		10.4	10.0	3.6	20.0
Acetone	Ave	0.0183	0.0161		35.0	40.0	-12.5	20.0
2-Butanone (MEK)	Ave	0.0386	0.0375		38.8	40.0	-3.0	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1188	0.1116		37.6	40.0	-6.1	20.0
2-Hexanone	Ave	0.3156	0.2941		37.3	40.0	-6.8	20.0
Cyclohexanone	Ave	0.0134	0.0117		348	400	-13.0	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8234.D
 Lims ID: ICV
 Client ID:
 Sample Type: ICV
 Inject. Date: 02-Jun-2015 01:29:30 ALS Bottle#: 16 Worklist Smp#: 23
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: icv
 Operator ID: bergerb Instrument ID: VMS_Z
 Sublist:

Method: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\AQ_VMSZ_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 02-Jun-2015 02:33:21 Calib Date: 02-Jun-2015 01:06:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8233.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK021

First Level Reviewer: bergerb Date: 02-Jun-2015 02:33:35

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.484	3.468	0.016	91	140944	250.0	250.0	
* 2 Fluorobenzene	96	6.374	6.375	-0.001	98	889890	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.022	11.023	-0.001	85	218952	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.112	15.113	-0.001	96	336059	12.5	12.5	
27 Dichlorodifluoromethane	85	1.918	1.901	0.017	98	414920	10.0	11.6	
30 Chloromethane	50	1.987	1.988	-0.001	99	256084	10.0	10.7	M
31 Butadiene	54	2.092	2.075	0.017	86	181806	NC	NC	
32 Vinyl chloride	62	2.109	2.110	-0.001	98	266723	10.0	10.9	
35 Bromomethane	94	2.353	2.336	0.017	90	252651	10.0	10.6	
36 Chloroethane	64	2.388	2.388	0.000	99	169311	10.0	11.1	
37 Dichlorofluoromethane	67	2.544	2.545	-0.001	97	609581	10.0	10.5	
38 Trichlorofluoromethane	101	2.597	2.597	0.000	99	551543	10.0	10.4	
48 Acetone	43	3.049	3.050	-0.001	100	45711	40.0	35.0	
67 2-Butanone (MEK)	43	4.860	4.877	-0.017	100	106639	40.0	38.8	
98 4-Methyl-2-pentanone (MIBK)	43	8.515	8.533	-0.018	95	317876	40.0	37.6	
105 2-Hexanone	43	9.855	9.856	-0.001	95	206029	40.0	37.3	
119 Cyclohexanone	55	12.936	12.937	-0.001	89	81787	400.0	348.0	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

MV-567649-D_00001 Amount Added: 1.00 Units: uL
 MV-Gas/Ket B_00019 Amount Added: 5.00 Units: uL

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8234.D

Injection Date: 02-Jun-2015 01:29:30

Instrument ID: VMS_Z

Operator ID: bergerb

Lims ID: ICV

Worklist Smp#: 23

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

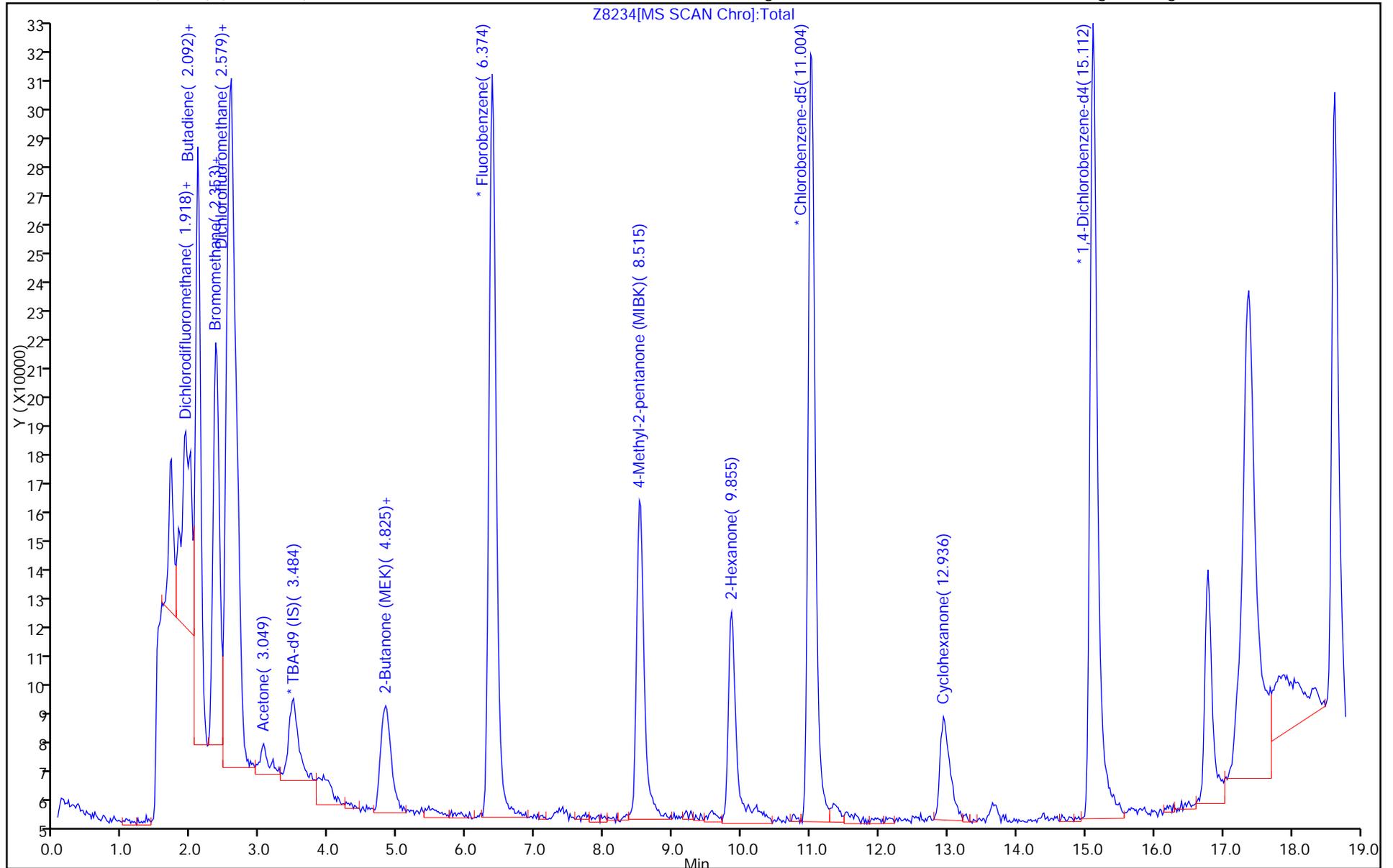
ALS Bottle#: 16

Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



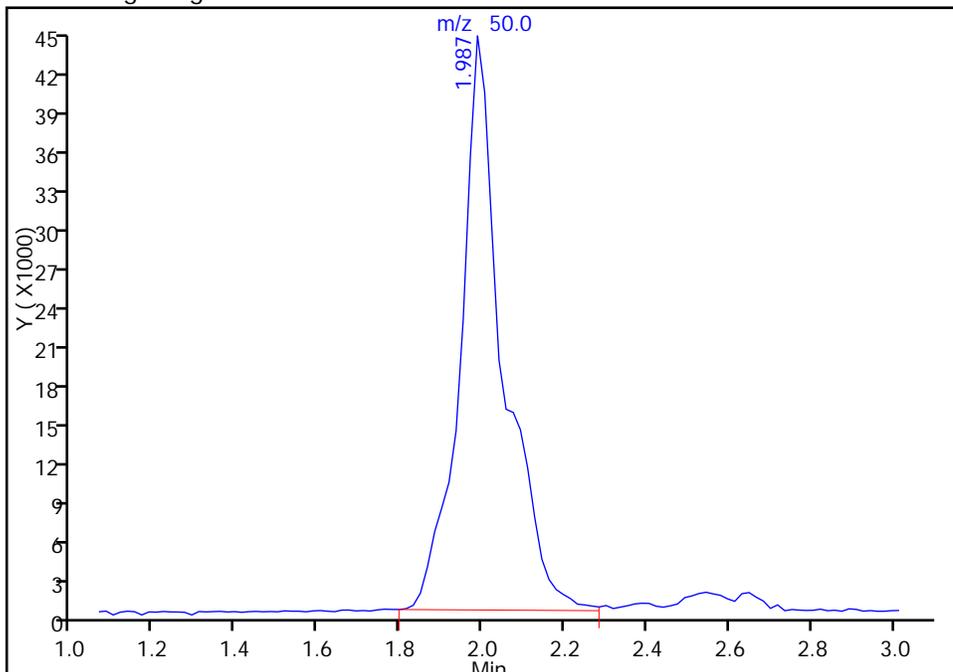
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8234.D
Injection Date: 02-Jun-2015 01:29:30 Instrument ID: VMS_Z
Lims ID: ICV
Client ID:
Operator ID: bergerb ALS Bottle#: 16 Worklist Smp#: 23
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

30 Chloromethane, CAS: 74-87-3

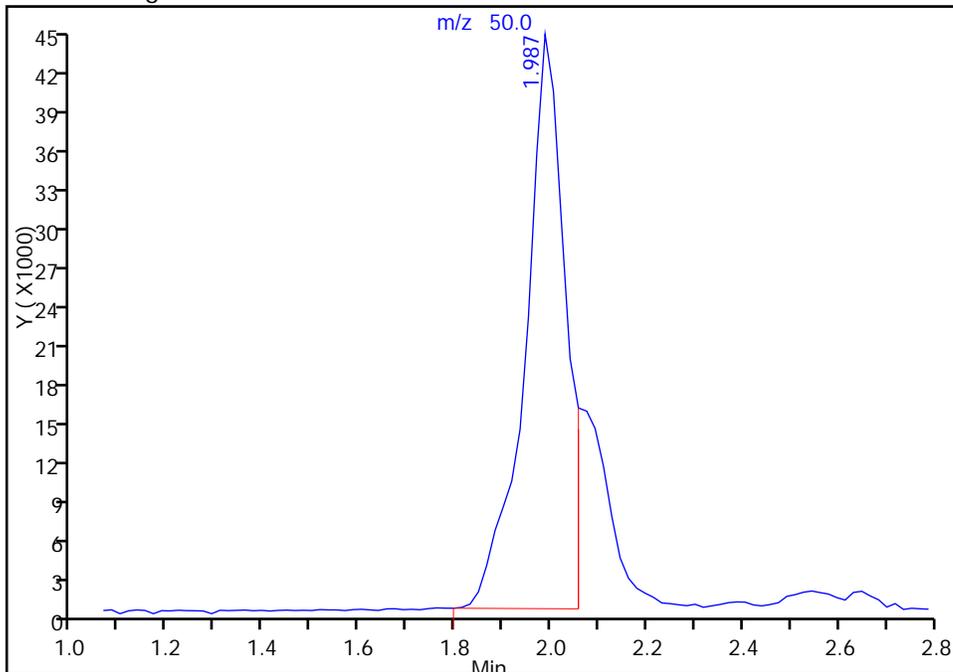
RT: 1.99
Area: 316908
Amount: 13.361027
Amount Units: ug/l

Processing Integration Results



RT: 1.99
Area: 256084
Amount: 10.676913
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 02-Jun-2015 01:52:13
Audit Action: Split an Integrated Peak
Audit Reason: Shouldering

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Lab Sample ID: ICV 280-279871/24 Calibration Date: 06/02/2015 01:51
 Instrument ID: VMS_Z Calib Start Date: 04/27/2015 11:28
 GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 04/27/2015 13:21
 Lab File ID: Z8235.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethyl acetate	Ave	0.0878	0.0367			20.0	-58.2*	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8235.D
 Lims ID: ICV
 Client ID:
 Sample Type: ICV
 Inject. Date: 02-Jun-2015 01:51:30 ALS Bottle#: 17 Worklist Smp#: 24
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: icv
 Operator ID: bergerb Instrument ID: VMS_Z
 Sublist:

Method: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\AQ_VMSZ_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 02-Jun-2015 02:33:21 Calib Date: 02-Jun-2015 01:06:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8233.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK021

First Level Reviewer: bergerb Date: 02-Jun-2015 02:15:11

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.482	3.468	0.014	91	143022	250.0	250.0	
* 2 Fluorobenzene	96	6.371	6.375	-0.004	98	892830	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.019	11.023	-0.004	86	217265	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.110	15.113	-0.003	95	337271	12.5	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.466	5.452	0.014	94	422548	10.0	9.90	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	5.901	5.887	0.014	94	155558	10.0	9.59	
\$ 10 Toluene-d8 (Surr)	98	8.704	8.690	0.014	92	714701	10.0	10.1	
\$ 11 4-Bromofluorobenzene (Surr	95	13.056	13.042	0.014	89	387968	10.0	10.1	
34 Ethylene oxide	43	2.281	2.284	-0.003	99	460360	2000.0	1450.7	
39 Ethanol	45	2.681	2.702	-0.021	79	15487	500.0	493.5	
42 Propene oxide	58	2.855	2.859	-0.004	96	546043	500.0	389.6	
47 Isopropyl alcohol	45	3.151	3.155	-0.004	28	18180	100.0	62.5	a
53 Acetonitrile	41	3.290	3.294	-0.004	99	34254	100.0	107.9	
60 Isopropyl ether	87	4.282	4.286	-0.004	98	154678	10.0	9.18	
63 2-Chloro-1,3-butadiene	53	4.300	4.303	-0.003	89	288484	10.0	8.63	
64 Tert-butyl ethyl ether	59	4.718	4.721	-0.003	99	523060	10.0	8.85	
69 Propionitrile	54	4.909	4.895	0.014	66	51012	100.0	99.3	
68 Ethyl acetate	43	4.944	4.930	0.014	96	52383	NC	NC	
73 Methacrylonitrile	41	5.101	5.104	-0.003	90	318670	100.0	88.5	
83 Tert-amyl methyl ether	73	6.180	6.183	-0.003	98	443997	10.0	9.33	M
86 n-Butanol	56	6.807	6.793	0.013	83	30818	250.0	205.4	
88 Ethyl acrylate	55	6.807	6.810	-0.004	24	4349	NC	NC	
91 Methyl methacrylate	100	7.398	7.384	0.014	90	53569	20.0	18.8	
95 2-Nitropropane	41	7.903	7.907	-0.004	95	21098	20.0	16.3	
106 Tetrahydrothiophene	60	10.027	10.030	-0.003	93	41770	10.0	7.36	
120 cis-1,4-Dichloro-2-butene	53	12.882	12.885	-0.003	0	26886	10.0	8.44	
135 1,2,3-Trimethylbenzene	105	15.284	15.270	0.014	96	595896	10.0	8.90	
140 1,3,5-Trichlorobenzene	180	17.216	17.202	0.014	97	353467	10.0	9.24	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MV-567649-D_00001

Amount Added: 1.00

Units: uL

MV-Supp B_00005

Amount Added: 5.00

Units: uL

MV-ARCH SS A_00047

Amount Added: 0.80

Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8235.D

Injection Date: 02-Jun-2015 01:51:30

Instrument ID: VMS_Z

Operator ID: bergerb

Lims ID: ICV

Worklist Smp#: 24

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

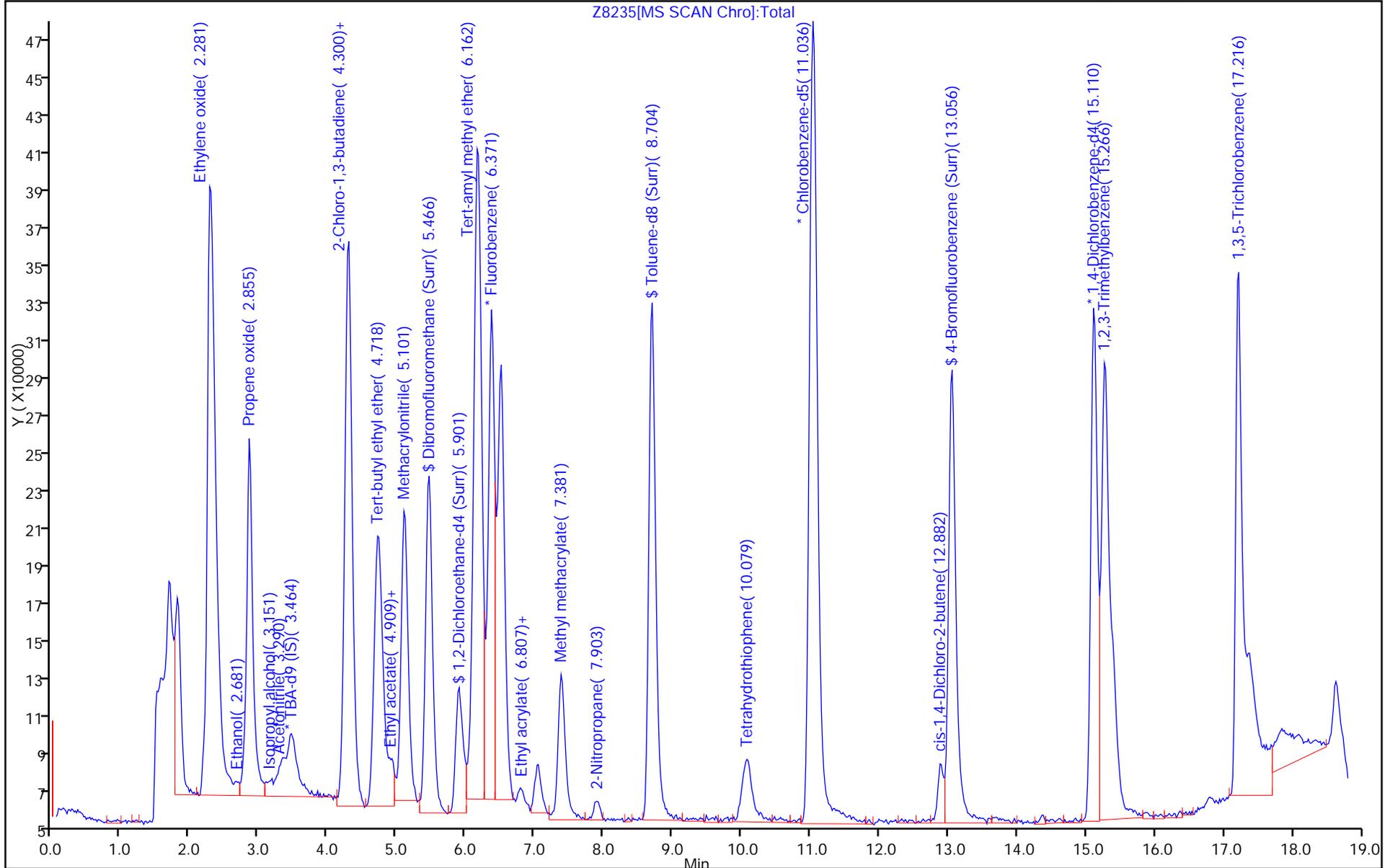
ALS Bottle#: 17

Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Lab Sample ID: ICV 280-279871/24 Calibration Date: 06/02/2015 01:51
 Instrument ID: VMS_Z Calib Start Date: 06/01/2015 19:51
 GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 06/02/2015 01:06
 Lab File ID: Z8235.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol	Lin1		0.0004		493	500	-1.3	20.0
Isopropyl alcohol	Lin1		0.0026		62.5	100	-37.5*	20.0
Acetonitrile	Lin2		0.0048		108	100	7.9	20.0
Isopropyl ether	Ave	0.2360	0.2166		9.18	10.0	-8.2	20.0
2-Chloro-1,3-butadiene	Ave	0.4679	0.4039		8.63	10.0	-13.7	20.0
Tert-butyl ethyl ether	Ave	0.8270	0.7323		8.85	10.0	-11.5	20.0
Propionitrile	Ave	0.0072	0.0071		99.3	100	-0.7	20.0
Methacrylonitrile	Ave	0.0504	0.0446		88.5	100	-11.5	20.0
Tert-amyl methyl ether	Ave	0.6662	0.6216		9.33	10.0	-6.7	20.0
n-Butanol	Ave	0.0021	0.0017		205	250	-17.8	20.0
Methyl methacrylate	Ave	0.0400	0.0375		18.8	20.0	-6.2	20.0
2-Nitropropane	Ave	0.0181	0.0148		16.3	20.0	-18.3	20.0
cis-1,4-Dichloro-2-butene	Ave	0.1181	0.0997		8.44	10.0	-15.6	20.0
1,2,3-Trimethylbenzene	Ave	2.481	2.209		8.90	10.0	-11.0	20.0
Dibromofluoromethane (Surr)	Ave	0.5973	0.5916		9.90	10.0	-1.0	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2270	0.2178		9.59	10.0	-4.1	20.0
Toluene-d8 (Surr)	Ave	4.060	4.112		10.1	10.0	1.3	20.0
4-Bromofluorobenzene (Surr)	Ave	1.417	1.438		10.1	10.0	1.5	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8235.D
 Lims ID: ICV
 Client ID:
 Sample Type: ICV
 Inject. Date: 02-Jun-2015 01:51:30 ALS Bottle#: 17 Worklist Smp#: 24
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: icv
 Operator ID: bergerb Instrument ID: VMS_Z
 Sublist:
 Method: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\AQ_VMSZ_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 02-Jun-2015 02:33:21 Calib Date: 02-Jun-2015 01:06:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8233.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK021

First Level Reviewer: bergerb

Date: 02-Jun-2015 02:15:11

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.482	3.468	0.014	91	143022	250.0	250.0	
* 2 Fluorobenzene	96	6.371	6.375	-0.004	98	892830	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.019	11.023	-0.004	86	217265	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.110	15.113	-0.003	95	337271	12.5	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.466	5.452	0.014	94	422548	10.0	9.90	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	5.901	5.887	0.014	94	155558	10.0	9.59	
\$ 10 Toluene-d8 (Surr)	98	8.704	8.690	0.014	92	714701	10.0	10.1	
\$ 11 4-Bromofluorobenzene (Surr	95	13.056	13.042	0.014	89	387968	10.0	10.1	
34 Ethylene oxide	43	2.281	2.284	-0.003	99	460360	2000.0	1450.7	
39 Ethanol	45	2.681	2.702	-0.021	79	15487	500.0	493.5	
42 Propene oxide	58	2.855	2.859	-0.004	96	546043	500.0	389.6	
47 Isopropyl alcohol	45	3.151	3.155	-0.004	28	18180	100.0	62.5	a
53 Acetonitrile	41	3.290	3.294	-0.004	99	34254	100.0	107.9	
60 Isopropyl ether	87	4.282	4.286	-0.004	98	154678	10.0	9.18	
63 2-Chloro-1,3-butadiene	53	4.300	4.303	-0.003	89	288484	10.0	8.63	
64 Tert-butyl ethyl ether	59	4.718	4.721	-0.003	99	523060	10.0	8.85	
69 Propionitrile	54	4.909	4.895	0.014	66	51012	100.0	99.3	
68 Ethyl acetate	43	4.944	4.930	0.014	96	52383	NC	NC	
73 Methacrylonitrile	41	5.101	5.104	-0.003	90	318670	100.0	88.5	
83 Tert-amyl methyl ether	73	6.180	6.183	-0.003	98	443997	10.0	9.33	M
86 n-Butanol	56	6.807	6.793	0.013	83	30818	250.0	205.4	
88 Ethyl acrylate	55	6.807	6.810	-0.004	24	4349	NC	NC	
91 Methyl methacrylate	100	7.398	7.384	0.014	90	53569	20.0	18.8	
95 2-Nitropropane	41	7.903	7.907	-0.004	95	21098	20.0	16.3	
106 Tetrahydrothiophene	60	10.027	10.030	-0.003	93	41770	10.0	7.36	
120 cis-1,4-Dichloro-2-butene	53	12.882	12.885	-0.003	0	26886	10.0	8.44	
135 1,2,3-Trimethylbenzene	105	15.284	15.270	0.014	96	595896	10.0	8.90	
140 1,3,5-Trichlorobenzene	180	17.216	17.202	0.014	97	353467	10.0	9.24	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MV-567649-D_00001	Amount Added: 1.00	Units: uL
MV-Supp B_00005	Amount Added: 5.00	Units: uL
MV-ARCH SS A_00047	Amount Added: 0.80	Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8235.D

Injection Date: 02-Jun-2015 01:51:30

Instrument ID: VMS_Z

Operator ID: bergerb

Lims ID: ICV

Worklist Smp#: 24

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

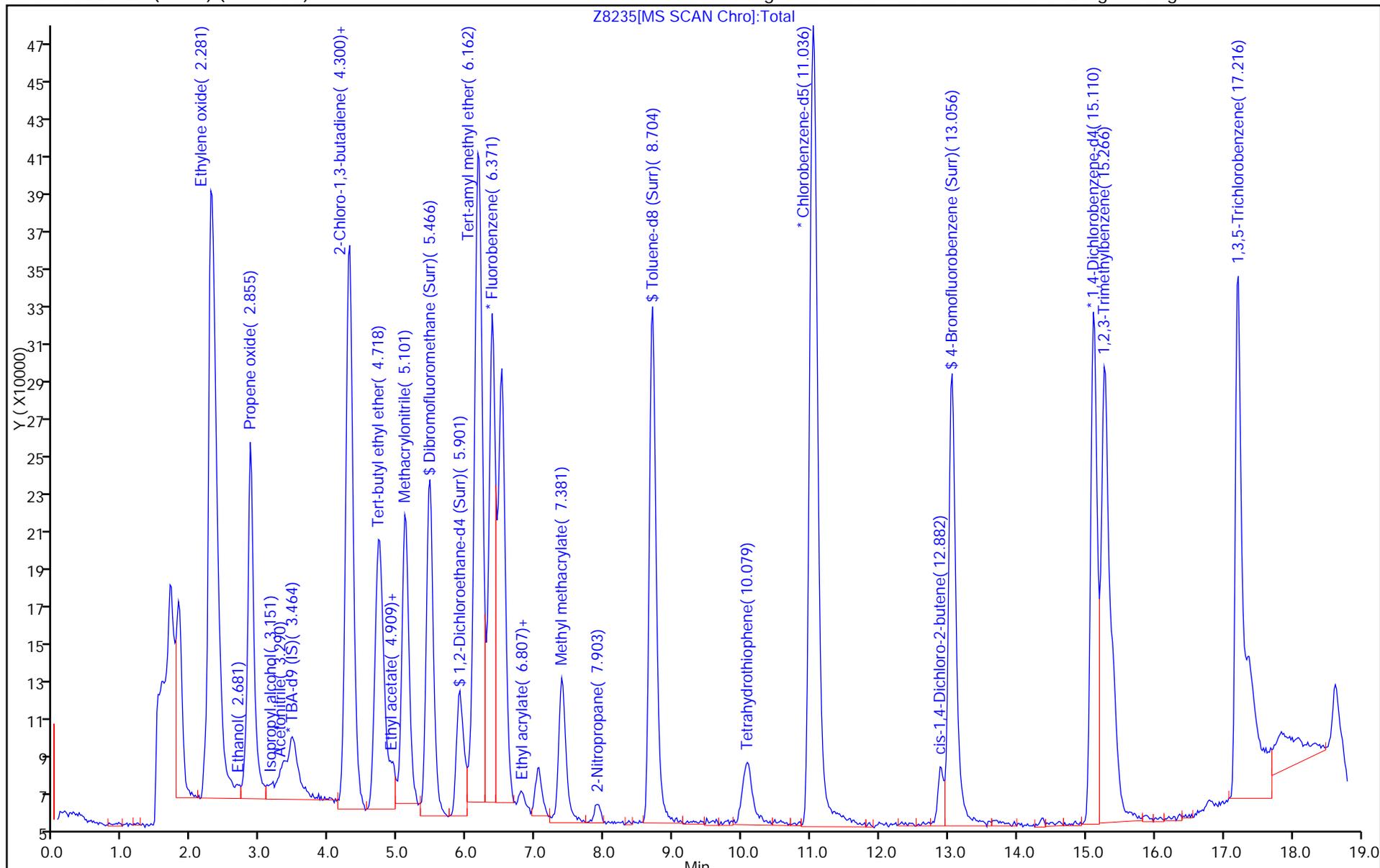
ALS Bottle#: 17

Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



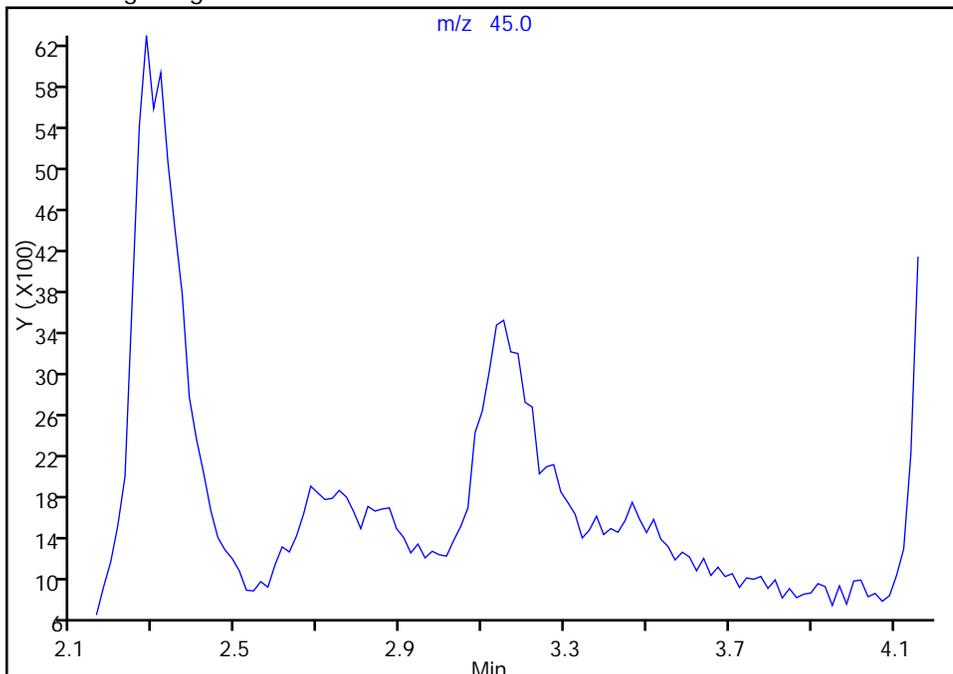
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8235.D
Injection Date: 02-Jun-2015 01:51:30 Instrument ID: VMS_Z
Lims ID: ICV
Client ID:
Operator ID: bergerb ALS Bottle#: 17 Worklist Smp#: 24
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

47 Isopropyl alcohol, CAS: 67-63-0

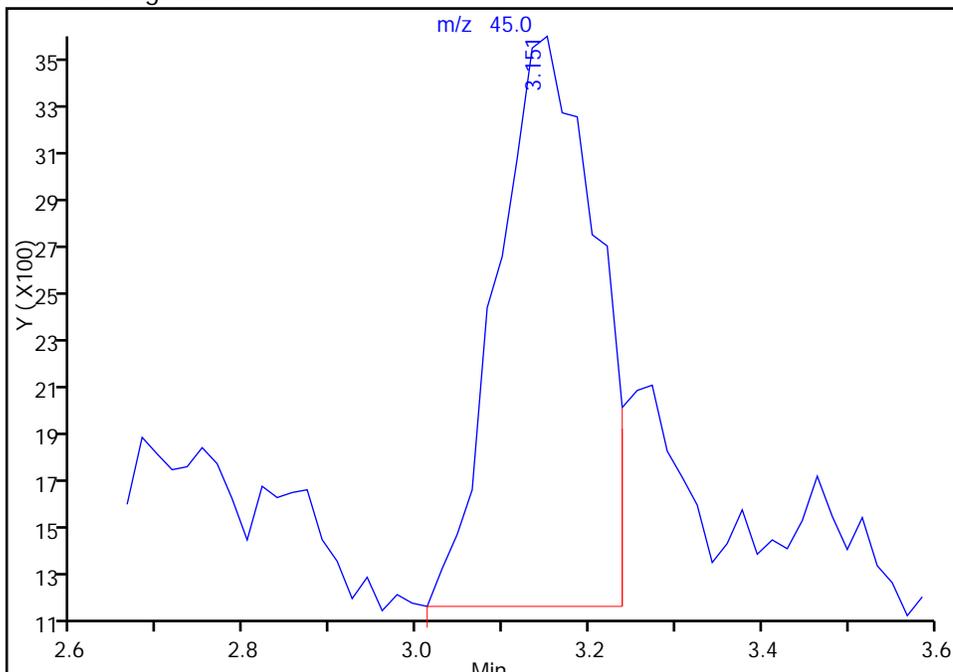
Not Detected
Expected RT: 3.15

Processing Integration Results



RT: 3.15
Area: 18180
Amount: 62.514519
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 02-Jun-2015 02:18:48
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

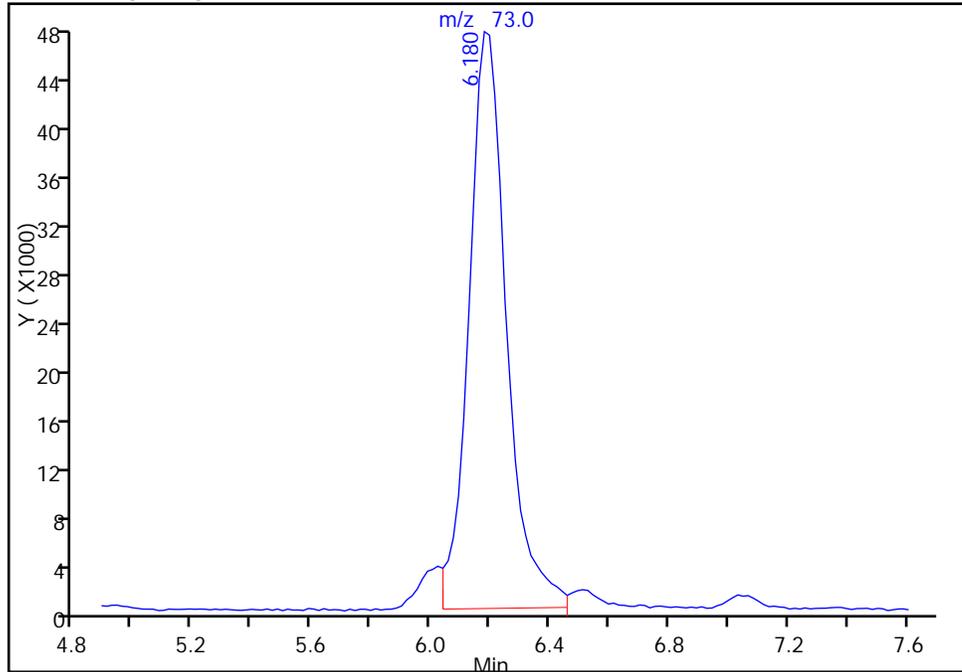
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8235.D
Injection Date: 02-Jun-2015 01:51:30 Instrument ID: VMS_Z
Lims ID: ICV
Client ID:
Operator ID: bergerb ALS Bottle#: 17 Worklist Smp#: 24
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

83 Tert-amyl methyl ether, CAS: 994-05-8

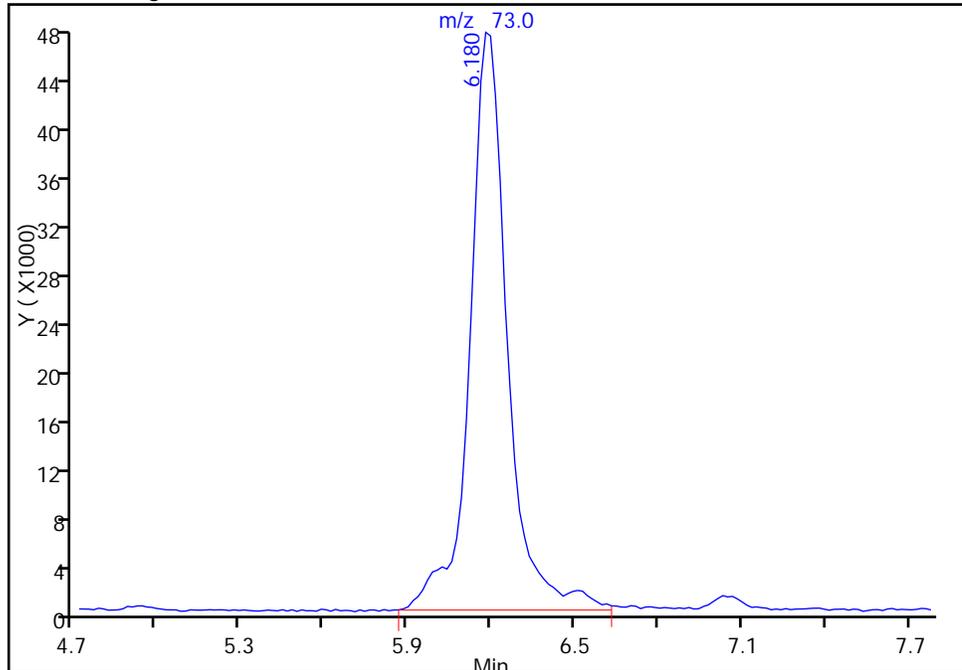
RT: 6.18
Area: 414297
Amount: 8.706129
Amount Units: ug/l

Processing Integration Results



RT: 6.18
Area: 443997
Amount: 9.330251
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 02-Jun-2015 02:18:48
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Lab Sample ID: CCV 280-281058/2 Calibration Date: 06/09/2015 17:45
 Instrument ID: VMS_Z Calib Start Date: 04/06/2015 23:25
 GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 04/07/2015 01:41
 Lab File ID: Z8585.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Lin2		0.0007			200		20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8585.D
 Lims ID: CCV
 Client ID:
 Sample Type: CCV
 Inject. Date: 09-Jun-2015 17:45:30 ALS Bottle#: 1 Worklist Smp#: 2
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ccv m
 Operator ID: bergerb Instrument ID: VMS_Z
 Sublist: chrom-AQ_VMSZ_8260*sub65
 Method: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\AQ_VMSZ_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 10-Jun-2015 15:48:01 Calib Date: 02-Jun-2015 01:06:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8233.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK012

First Level Reviewer: bergerb Date: 10-Jun-2015 15:48:01

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.466	3.466	0.000	84	177554	250.0	250.0	
* 2 Fluorobenzene	96	6.390	6.390	0.000	98	850518	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.036	11.036	0.000	85	222411	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.125	15.125	0.000	91	352827	12.5	12.5	
27 Dichlorodifluoromethane	85	1.900	1.900	0.000	98	344211	10.0	10.1	
30 Chloromethane	50	1.970	1.970	0.000	99	215784	10.0	9.45	M
31 Butadiene	54	2.074	2.074	0.000	85	150467	NC	NC	
32 Vinyl chloride	62	2.092	2.092	0.000	98	230778	10.0	9.90	
35 Bromomethane	94	2.335	2.335	0.000	89	237518	10.0	10.4	
36 Chloroethane	64	2.370	2.370	0.000	98	157093	10.0	10.8	
37 Dichlorofluoromethane	67	2.544	2.544	0.000	97	581714	10.0	10.5	
38 Trichlorofluoromethane	101	2.579	2.579	0.000	99	484877	10.0	9.53	
40 Ethyl ether	59	2.770	2.770	0.000	90	108085	10.0	9.83	
44 Acrolein	56	2.892	2.892	0.000	98	56086	100.0	114.3	
45 1,1-Dichloroethene	96	3.014	3.014	0.000	98	255141	10.0	11.1	
48 Acetone	43	3.031	3.031	0.000	28	45836	40.0	36.7	
46 1,1,2-Trichloro-1,2,2-trif	151	3.084	3.084	0.000	96	368746	10.0	10.5	
49 Iodomethane	142	3.171	3.171	0.000	99	656802	10.0	10.5	
50 Carbon disulfide	76	3.258	3.258	0.000	98	930503	10.0	10.4	
52 3-Chloro-1-propene	41	3.327	3.327	0.000	87	336778	10.0	9.23	
51 Methyl acetate	43	3.327	3.327	0.000	74	246929	50.0	46.7	
54 Methylene Chloride	84	3.449	3.449	0.000	91	216506	10.0	10.6	
55 2-Methyl-2-propanol	59	3.553	3.553	0.000	91	57906	100.0	115.7	
58 Acrylonitrile	53	3.675	3.675	0.000	99	175816	100.0	107.1	
57 trans-1,2-Dichloroethene	96	3.745	3.745	0.000	99	271688	10.0	10.7	
56 Methyl tert-butyl ether	73	3.762	3.762	0.000	93	369623	10.0	10.9	
59 Hexane	57	4.041	4.041	0.000	89	357039	10.0	9.04	
62 1,1-Dichloroethane	63	4.180	4.180	0.000	95	458912	10.0	9.72	
61 Vinyl acetate	43	4.215	4.215	0.000	96	435102	20.0	17.9	
67 2-Butanone (MEK)	43	4.858	4.858	0.000	42	108771	40.0	41.4	
65 cis-1,2-Dichloroethene	96	4.858	4.858	0.000	84	265995	10.0	10.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
66 2,2-Dichloropropane	77	4.893	4.893	0.000	86	422343	10.0	9.99	
70 sec-Butyl Alcohol	45	5.102	5.102	0.000	95	149075	300.0	248.3	
71 Chlorobromomethane	128	5.154	5.154	0.000	88	140702	10.0	11.0	
72 Tetrahydrofuran	42	5.259	5.259	0.000	36	33169	20.0	19.9	
74 Chloroform	83	5.259	5.259	0.000	92	440359	10.0	10.0	
75 1,1,1-Trichloroethane	97	5.554	5.554	0.000	98	412106	10.0	9.91	
76 Cyclohexane	56	5.659	5.659	0.000	90	389968	10.0	9.87	
78 1,1-Dichloropropene	75	5.746	5.746	0.000	99	358494	10.0	9.57	
77 Carbon tetrachloride	117	5.781	5.781	0.000	97	437241	10.0	9.77	
80 Isobutyl alcohol	41	5.850	5.850	0.000	40	47622	250.0	221.3	
82 1,2-Dichloroethane	62	5.989	5.989	0.000	90	174554	10.0	9.43	
81 Benzene	78	6.007	6.007	0.000	94	695620	10.0	10.6	
84 n-Heptane	43	6.407	6.407	0.000	89	383093	10.0	9.31	
85 Trichloroethene	95	6.912	6.912	0.000	95	309174	10.0	10.2	
89 2-Pentanone	43	7.138	7.138	0.000	100	226762	40.0	37.3	
90 1,2-Dichloropropane	63	7.207	7.207	0.000	96	250343	10.0	9.40	
87 Methylcyclohexane	55	7.225	7.225	0.000	92	323875	10.0	9.46	
92 Dibromomethane	93	7.381	7.381	0.000	92	143026	10.0	9.77	
93 1,4-Dioxane	88	7.434	7.434	0.000	81	10060	NC	NC	
94 Dichlorobromomethane	83	7.608	7.608	0.000	100	385708	10.0	10.3	
96 2-Chloroethyl vinyl ether	63	8.060	8.060	0.000	91	77876	10.0	8.65	
97 cis-1,3-Dichloropropene	75	8.286	8.286	0.000	98	330411	10.0	9.12	
98 4-Methyl-2-pentanone (MIBK)	43	8.530	8.530	0.000	95	324871	40.0	40.2	
99 Toluene	91	8.808	8.808	0.000	99	739461	10.0	9.96	
100 trans-1,3-Dichloropropene	75	9.139	9.139	0.000	90	226064	10.0	9.89	
101 Ethyl methacrylate	69	9.330	9.330	0.000	85	179289	10.0	8.39	
102 1,1,2-Trichloroethane	97	9.435	9.435	0.000	90	147606	10.0	10.6	
104 1,3-Dichloropropane	76	9.678	9.678	0.000	86	240387	10.0	9.26	
103 Tetrachloroethene	164	9.713	9.713	0.000	97	313518	10.0	10.0	
105 2-Hexanone	43	9.870	9.870	0.000	94	203948	40.0	36.3	
107 Chlorodibromomethane	129	10.061	10.061	0.000	89	303503	10.0	9.47	
109 Ethylene Dibromide	107	10.235	10.235	0.000	99	201836	10.0	9.11	
111 Chlorobenzene	112	11.070	11.070	0.000	96	594304	10.0	10.1	
110 1-Chlorohexane	91	11.070	11.070	0.000	74	349442	10.0	8.75	
113 1,1,1,2-Tetrachloroethane	131	11.227	11.227	0.000	97	291750	10.0	10.0	
112 Ethylbenzene	106	11.297	11.297	0.000	99	276383	10.0	9.79	
114 m-Xylene & p-Xylene	106	11.488	11.488	0.000	98	365926	10.0	9.65	
115 o-Xylene	106	12.167	12.167	0.000	97	317674	10.0	9.52	
116 Styrene	104	12.184	12.184	0.000	94	536339	10.0	9.83	
117 Bromoform	173	12.480	12.480	0.000	98	177578	10.0	9.60	
118 Isopropylbenzene	105	12.828	12.828	0.000	95	991635	10.0	9.45	
119 Cyclohexanone	55	12.950	12.950	0.000	87	93939	400.0	393.5	
121 Bromobenzene	156	13.315	13.315	0.000	93	274642	10.0	10.3	
122 1,1,2,2-Tetrachloroethane	83	13.333	13.333	0.000	95	191484	10.0	9.78	
124 1,2,3-Trichloropropane	110	13.385	13.385	0.000	81	46076	10.0	8.55	
125 trans-1,4-Dichloro-2-buten	53	13.437	13.437	0.000	81	36361	10.0	9.69	
123 N-Propylbenzene	120	13.559	13.559	0.000	98	272820	10.0	10.1	
126 2-Chlorotoluene	126	13.681	13.681	0.000	67	233183	10.0	10.4	a
128 4-Chlorotoluene	126	13.872	13.872	0.000	97	261488	10.0	10.0	
127 1,3,5-Trimethylbenzene	105	13.889	13.889	0.000	95	768903	10.0	9.69	
129 tert-Butylbenzene	119	14.464	14.464	0.000	92	896073	10.0	10.2	
130 1,2,4-Trimethylbenzene	105	14.551	14.551	0.000	94	740292	10.0	9.55	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
131 sec-Butylbenzene	134	14.864	14.864	0.000	93	231004	10.0	10.0	
132 1,3-Dichlorobenzene	146	15.003	15.003	0.000	97	450969	10.0	10.0	
133 4-Isopropyltoluene	119	15.142	15.142	0.000	96	1023297	10.0	10.3	
134 1,4-Dichlorobenzene	146	15.177	15.177	0.000	94	543838	10.0	10.2	
138 1,2-Dichlorobenzene	146	15.821	15.821	0.000	97	388363	10.0	9.87	
137 n-Butylbenzene	91	15.856	15.856	0.000	97	841598	10.0	9.55	
139 1,2-Dibromo-3-Chloropropan	157	16.934	16.934	0.000	92	35001	10.0	9.16	
141 1,2,4-Trichlorobenzene	180	17.874	17.874	0.000	94	291003	10.0	10.0	
142 Hexachlorobutadiene	225	18.083	18.083	0.000	98	266138	10.0	9.88	
143 Naphthalene	128	18.100	18.100	0.000	97	274441	10.0	10.1	
144 1,2,3-Trichlorobenzene	180	18.344	18.344	0.000	95	224232	10.0	10.1	
S 145 1,2-Dichloroethene, Total	1				0		20.0	21.4	
S 146 Xylenes, Total	106				0		20.0	19.2	
S 147 1,2-Dichloroethene, Total	96				0		20.0	21.4	
S 148 1,3-Dichloropropene, Total	1				0		20.0	19.0	
S 149 Trihalomethanes, Total	1				0		40.0	39.4	
S 150 Xylenes, Total (URS)	1				0		20.0	19.2	

QC Flag Legend

Processing Flags

NC - Not Calibrated

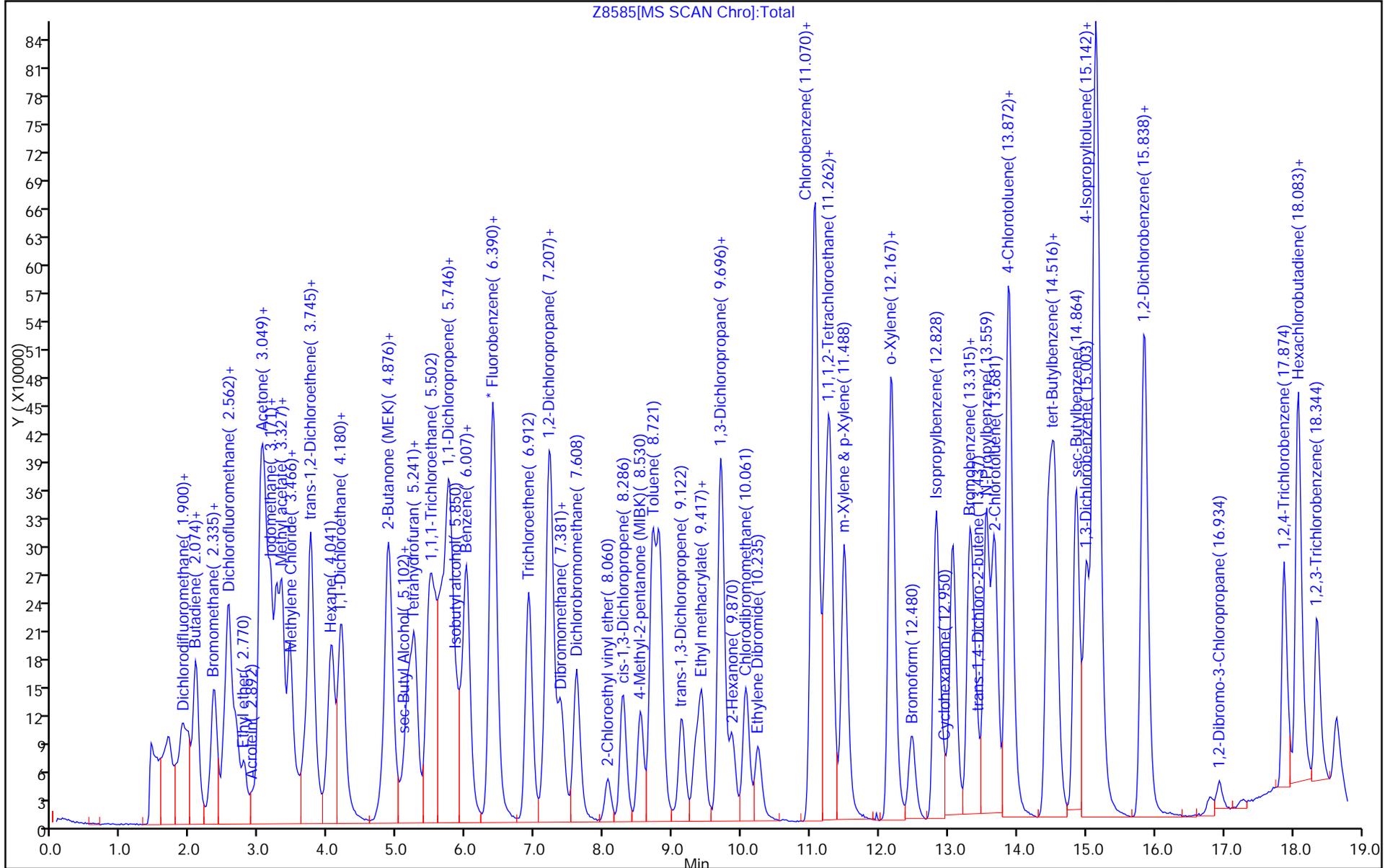
Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MV-567649-D_00001	Amount Added: 1.00	Units: uL
MV-Main A_00023	Amount Added: 5.00	Units: uL
MV-Gas/Ket A_00034	Amount Added: 5.00	Units: uL
MV-2cleve+AVA_00010	Amount Added: 5.00	Units: uL



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Lab Sample ID: CCV 280-281058/2 Calibration Date: 06/09/2015 17:45
 Instrument ID: VMS_Z Calib Start Date: 06/01/2015 19:51
 GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 06/02/2015 01:06
 Lab File ID: Z8585.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Lin1		0.5059		10.1	10.0	1.2	20.0
Chloromethane	Lin2		0.3171	0.1000	9.45	10.0	-5.5	20.0
Vinyl chloride	Ave	0.3427	0.3392		9.90	10.0	-1.0	20.0
Bromomethane	Ave	0.3363	0.3491		10.4	10.0	3.8	20.0
Chloroethane	Ave	0.2135	0.2309		10.8	10.0	8.1	20.0
Dichlorofluoromethane	Ave	0.8126	0.8549		10.5	10.0	5.2	20.0
Trichlorofluoromethane	Ave	0.7478	0.7126		9.53	10.0	-4.7	20.0
Ethyl ether	Ave	0.1616	0.1589		9.83	10.0	-1.7	20.0
Acrolein	Lin1		0.0082		114	100	14.3	20.0
1,1-Dichloroethene	Ave	0.3376	0.3750		11.1	10.0	11.1	20.0
Acetone	Ave	0.0183	0.0168		36.7	40.0	-8.2	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.5179	0.5419		10.5	10.0	4.6	20.0
Iodomethane	Ave	0.9161	0.9653		10.5	10.0	5.4	20.0
Carbon disulfide	Ave	1.312	1.368		10.4	10.0	4.2	20.0
3-Chloro-1-propene	Ave	0.5363	0.4950		9.23	10.0	-7.7	20.0
Methyl acetate	Ave	0.0777	0.0726		46.7	50.0	-6.6	20.0
Methylene Chloride	Ave	0.3011	0.3182		10.6	10.0	5.7	20.0
tert-Butyl alcohol	Ave	0.7050	0.8153		116	100	15.7	20.0
Acrylonitrile	Ave	0.0241	0.0258		107	100	7.1	20.0
trans-1,2-Dichloroethene	Ave	0.3717	0.3993		10.7	10.0	7.4	20.0
Methyl tert-butyl ether	Ave	0.4982	0.5432		10.9	10.0	9.0	20.0
Hexane	Ave	2.220	2.007		9.04	10.0	-9.6	20.0
1,1-Dichloroethane	Ave	0.6940	0.6745	0.1000	9.72	10.0	-2.8	20.0
Vinyl acetate	Ave	0.3571	0.3197		17.9	20.0	-10.5	20.0
2-Butanone (MEK)	Ave	0.0386	0.0400		41.4	40.0	3.5	20.0
cis-1,2-Dichloroethene	Ave	0.3655	0.3909		10.7	10.0	7.0	20.0
2,2-Dichloropropane	Lin2		0.6207		9.99	10.0	-0.1	20.0
sec-Butyl Alcohol	Ave	0.8452	0.6997		248	300	-17.2	20.0
Bromochloromethane	Ave	0.1879	0.2068		11.0	10.0	10.1	20.0
Chloroform	Ave	0.6477	0.6472		9.99	10.0	-0.0	20.0
Tetrahydrofuran	Ave	0.0244	0.0244		19.9	20.0	-0.3	20.0
1,1,1-Trichloroethane	Ave	0.6114	0.6057		9.91	10.0	-0.9	20.0
Cyclohexane	Ave	0.5805	0.5731		9.87	10.0	-1.3	20.0
1,1-Dichloropropene	Ave	0.5506	0.5269		9.57	10.0	-4.3	20.0
Carbon tetrachloride	Ave	0.6578	0.6426		9.77	10.0	-2.3	20.0
Isobutyl alcohol	Ave	0.3029	0.2682		221	250	-11.5	20.0
1,2-Dichloroethane	Ave	0.2721	0.2565		9.43	10.0	-5.7	20.0
Benzene	Ave	0.9627	1.022		10.6	10.0	6.2	20.0
Trichloroethene	Ave	0.4452	0.4544		10.2	10.0	2.1	20.0
2-Pentanone	Ave	0.0895	0.0833		37.3	40.0	-6.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Lab Sample ID: CCV 280-281058/2 Calibration Date: 06/09/2015 17:45
 Instrument ID: VMS_Z Calib Start Date: 06/01/2015 19:51
 GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 06/02/2015 01:06
 Lab File ID: Z8585.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.3913	0.3679		9.40	10.0	-6.0	20.0
Methylcyclohexane	Ave	0.5031	0.4760		9.46	10.0	-5.4	20.0
Dibromomethane	Ave	0.2151	0.2102		9.77	10.0	-2.3	20.0
Bromodichloromethane	Ave	0.5496	0.5669		10.3	10.0	3.1	20.0
2-Chloroethyl vinyl ether	Ave	0.1323	0.1145		8.65	10.0	-13.5	20.0
cis-1,3-Dichloropropene	Ave	2.036	1.857		9.12	10.0	-8.8	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1188	0.1194		40.2	40.0	0.4	20.0
Toluene	Ave	1.091	1.087		9.96	10.0	-0.4	20.0
trans-1,3-Dichloropropene	Ave	0.3360	0.3322		9.89	10.0	-1.1	20.0
Ethyl methacrylate	Ave	1.201	1.008		8.39	10.0	-16.1	20.0
1,1,2-Trichloroethane	Ave	0.2051	0.2169		10.6	10.0	5.8	20.0
1,3-Dichloropropane	Ave	1.459	1.351		9.26	10.0	-7.4	20.0
Tetrachloroethene	Ave	1.759	1.762		10.0	10.0	0.2	20.0
2-Hexanone	Ave	0.3156	0.2866		36.3	40.0	-9.2	20.0
Chlorodibromomethane	Ave	1.802	1.706		9.47	10.0	-5.3	20.0
1,2-Dibromoethane	Ave	1.245	1.134		9.11	10.0	-8.9	20.0
1-Chlorohexane	Ave	2.245	1.964		8.75	10.0	-12.5	20.0
Chlorobenzene	Ave	3.316	3.340	0.3000	10.1	10.0	0.7	20.0
1,1,1,2-Tetrachloroethane	Ave	1.635	1.640		10.0	10.0	0.3	20.0
Ethylbenzene	Ave	1.587	1.553		9.79	10.0	-2.1	20.0
m-Xylene & p-Xylene	Ave	2.132	2.057		9.65	10.0	-3.5	20.0
o-Xylene	Ave	1.876	1.785		9.52	10.0	-4.8	20.0
Styrene	Ave	3.068	3.014		9.83	10.0	-1.7	20.0
Bromoform	Ave	1.039	0.998	0.1000	9.60	10.0	-4.0	20.0
Isopropylbenzene	Ave	3.719	3.513		9.45	10.0	-5.5	20.0
Cyclohexanone	Ave	0.0134	0.0132		394	400	-1.6	20.0
Bromobenzene	Ave	0.9443	0.9730		10.3	10.0	3.0	20.0
1,1,2,2-Tetrachloroethane	Ave	0.6936	0.6784	0.3000	9.78	10.0	-2.2	20.0
1,2,3-Trichloropropane	Ave	0.1909	0.1632		8.55	10.0	-14.5	20.0
trans-1,4-Dichloro-2-buten e	Ave	0.1329	0.1288		9.69	10.0	-3.1	20.0
N-Propylbenzene	Ave	0.9554	0.9666		10.1	10.0	1.2	20.0
2-Chlorotoluene	Ave	0.7943	0.8261		10.4	10.0	4.0	20.0
4-Chlorotoluene	Ave	0.9219	0.9264		10.0	10.0	0.5	20.0
1,3,5-Trimethylbenzene	Ave	2.812	2.724		9.69	10.0	-3.1	20.0
tert-Butylbenzene	Ave	3.111	3.175		10.2	10.0	2.1	20.0
1,2,4-Trimethylbenzene	Ave	2.746	2.623		9.55	10.0	-4.5	20.0
sec-Butylbenzene	Ave	0.8147	0.8184		10.0	10.0	0.5	20.0
1,3-Dichlorobenzene	Ave	1.591	1.598		10.0	10.0	0.4	20.0
p-Isopropyltoluene	Ave	3.513	3.625		10.3	10.0	3.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Lab Sample ID: CCV 280-281058/2 Calibration Date: 06/09/2015 17:45
 Instrument ID: VMS_Z Calib Start Date: 06/01/2015 19:51
 GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 06/02/2015 01:06
 Lab File ID: Z8585.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dichlorobenzene	Ave	1.896	1.927		10.2	10.0	1.6	20.0
1,2-Dichlorobenzene	Ave	1.394	1.376		9.87	10.0	-1.3	20.0
n-Butylbenzene	Ave	3.121	2.982		9.55	10.0	-4.5	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1353	0.1240		9.16	10.0	-8.4	20.0
1,2,4-Trichlorobenzene	Ave	1.031	1.031		10.0	10.0	0.0	20.0
Hexachlorobutadiene	Ave	0.9540	0.9429		9.88	10.0	-1.2	20.0
Naphthalene	Ave	0.9630	0.9723		10.1	10.0	1.0	20.0
1,2,3-Trichlorobenzene	Ave	0.7901	0.7944		10.1	10.0	0.5	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8585.D
 Lims ID: CCV
 Client ID:
 Sample Type: CCV
 Inject. Date: 09-Jun-2015 17:45:30 ALS Bottle#: 1 Worklist Smp#: 2
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ccv m
 Operator ID: bergerb Instrument ID: VMS_Z
 Sublist: chrom-AQ_VMSZ_8260*sub65
 Method: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\AQ_VMSZ_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 10-Jun-2015 15:48:01 Calib Date: 02-Jun-2015 01:06:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8233.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK012

First Level Reviewer: bergerb

Date: 10-Jun-2015 15:48:01

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.466	3.466	0.000	84	177554	250.0	250.0	
* 2 Fluorobenzene	96	6.390	6.390	0.000	98	850518	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.036	11.036	0.000	85	222411	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.125	15.125	0.000	91	352827	12.5	12.5	
27 Dichlorodifluoromethane	85	1.900	1.900	0.000	98	344211	10.0	10.1	
30 Chloromethane	50	1.970	1.970	0.000	99	215784	10.0	9.45	M
31 Butadiene	54	2.074	2.074	0.000	85	150467	NC	NC	
32 Vinyl chloride	62	2.092	2.092	0.000	98	230778	10.0	9.90	
35 Bromomethane	94	2.335	2.335	0.000	89	237518	10.0	10.4	
36 Chloroethane	64	2.370	2.370	0.000	98	157093	10.0	10.8	
37 Dichlorofluoromethane	67	2.544	2.544	0.000	97	581714	10.0	10.5	
38 Trichlorofluoromethane	101	2.579	2.579	0.000	99	484877	10.0	9.53	
40 Ethyl ether	59	2.770	2.770	0.000	90	108085	10.0	9.83	
44 Acrolein	56	2.892	2.892	0.000	98	56086	100.0	114.3	
45 1,1-Dichloroethene	96	3.014	3.014	0.000	98	255141	10.0	11.1	
48 Acetone	43	3.031	3.031	0.000	28	45836	40.0	36.7	
46 1,1,2-Trichloro-1,2,2-trif	151	3.084	3.084	0.000	96	368746	10.0	10.5	
49 Iodomethane	142	3.171	3.171	0.000	99	656802	10.0	10.5	
50 Carbon disulfide	76	3.258	3.258	0.000	98	930503	10.0	10.4	
52 3-Chloro-1-propene	41	3.327	3.327	0.000	87	336778	10.0	9.23	
51 Methyl acetate	43	3.327	3.327	0.000	74	246929	50.0	46.7	
54 Methylene Chloride	84	3.449	3.449	0.000	91	216506	10.0	10.6	
55 2-Methyl-2-propanol	59	3.553	3.553	0.000	91	57906	100.0	115.7	
58 Acrylonitrile	53	3.675	3.675	0.000	99	175816	100.0	107.1	
57 trans-1,2-Dichloroethene	96	3.745	3.745	0.000	99	271688	10.0	10.7	
56 Methyl tert-butyl ether	73	3.762	3.762	0.000	93	369623	10.0	10.9	
59 Hexane	57	4.041	4.041	0.000	89	357039	10.0	9.04	
62 1,1-Dichloroethane	63	4.180	4.180	0.000	95	458912	10.0	9.72	
61 Vinyl acetate	43	4.215	4.215	0.000	96	435102	20.0	17.9	
67 2-Butanone (MEK)	43	4.858	4.858	0.000	42	108771	40.0	41.4	
65 cis-1,2-Dichloroethene	96	4.858	4.858	0.000	84	265995	10.0	10.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
66 2,2-Dichloropropane	77	4.893	4.893	0.000	86	422343	10.0	9.99	
70 sec-Butyl Alcohol	45	5.102	5.102	0.000	95	149075	300.0	248.3	
71 Chlorobromomethane	128	5.154	5.154	0.000	88	140702	10.0	11.0	
72 Tetrahydrofuran	42	5.259	5.259	0.000	36	33169	20.0	19.9	
74 Chloroform	83	5.259	5.259	0.000	92	440359	10.0	10.0	
75 1,1,1-Trichloroethane	97	5.554	5.554	0.000	98	412106	10.0	9.91	
76 Cyclohexane	56	5.659	5.659	0.000	90	389968	10.0	9.87	
78 1,1-Dichloropropene	75	5.746	5.746	0.000	99	358494	10.0	9.57	
77 Carbon tetrachloride	117	5.781	5.781	0.000	97	437241	10.0	9.77	
80 Isobutyl alcohol	41	5.850	5.850	0.000	40	47622	250.0	221.3	
82 1,2-Dichloroethane	62	5.989	5.989	0.000	90	174554	10.0	9.43	
81 Benzene	78	6.007	6.007	0.000	94	695620	10.0	10.6	
84 n-Heptane	43	6.407	6.407	0.000	89	383093	10.0	9.31	
85 Trichloroethene	95	6.912	6.912	0.000	95	309174	10.0	10.2	
89 2-Pentanone	43	7.138	7.138	0.000	100	226762	40.0	37.3	
90 1,2-Dichloropropane	63	7.207	7.207	0.000	96	250343	10.0	9.40	
87 Methylcyclohexane	55	7.225	7.225	0.000	92	323875	10.0	9.46	
92 Dibromomethane	93	7.381	7.381	0.000	92	143026	10.0	9.77	
93 1,4-Dioxane	88	7.434	7.434	0.000	81	10060	NC	NC	
94 Dichlorobromomethane	83	7.608	7.608	0.000	100	385708	10.0	10.3	
96 2-Chloroethyl vinyl ether	63	8.060	8.060	0.000	91	77876	10.0	8.65	
97 cis-1,3-Dichloropropene	75	8.286	8.286	0.000	98	330411	10.0	9.12	
98 4-Methyl-2-pentanone (MIBK)	43	8.530	8.530	0.000	95	324871	40.0	40.2	
99 Toluene	91	8.808	8.808	0.000	99	739461	10.0	9.96	
100 trans-1,3-Dichloropropene	75	9.139	9.139	0.000	90	226064	10.0	9.89	
101 Ethyl methacrylate	69	9.330	9.330	0.000	85	179289	10.0	8.39	
102 1,1,2-Trichloroethane	97	9.435	9.435	0.000	90	147606	10.0	10.6	
104 1,3-Dichloropropane	76	9.678	9.678	0.000	86	240387	10.0	9.26	
103 Tetrachloroethene	164	9.713	9.713	0.000	97	313518	10.0	10.0	
105 2-Hexanone	43	9.870	9.870	0.000	94	203948	40.0	36.3	
107 Chlorodibromomethane	129	10.061	10.061	0.000	89	303503	10.0	9.47	
109 Ethylene Dibromide	107	10.235	10.235	0.000	99	201836	10.0	9.11	
111 Chlorobenzene	112	11.070	11.070	0.000	96	594304	10.0	10.1	
110 1-Chlorohexane	91	11.070	11.070	0.000	74	349442	10.0	8.75	
113 1,1,1,2-Tetrachloroethane	131	11.227	11.227	0.000	97	291750	10.0	10.0	
112 Ethylbenzene	106	11.297	11.297	0.000	99	276383	10.0	9.79	
114 m-Xylene & p-Xylene	106	11.488	11.488	0.000	98	365926	10.0	9.65	
115 o-Xylene	106	12.167	12.167	0.000	97	317674	10.0	9.52	
116 Styrene	104	12.184	12.184	0.000	94	536339	10.0	9.83	
117 Bromoform	173	12.480	12.480	0.000	98	177578	10.0	9.60	
118 Isopropylbenzene	105	12.828	12.828	0.000	95	991635	10.0	9.45	
119 Cyclohexanone	55	12.950	12.950	0.000	87	93939	400.0	393.5	
121 Bromobenzene	156	13.315	13.315	0.000	93	274642	10.0	10.3	
122 1,1,2,2-Tetrachloroethane	83	13.333	13.333	0.000	95	191484	10.0	9.78	
124 1,2,3-Trichloropropane	110	13.385	13.385	0.000	81	46076	10.0	8.55	
125 trans-1,4-Dichloro-2-buten	53	13.437	13.437	0.000	81	36361	10.0	9.69	
123 N-Propylbenzene	120	13.559	13.559	0.000	98	272820	10.0	10.1	
126 2-Chlorotoluene	126	13.681	13.681	0.000	67	233183	10.0	10.4	a
128 4-Chlorotoluene	126	13.872	13.872	0.000	97	261488	10.0	10.0	
127 1,3,5-Trimethylbenzene	105	13.889	13.889	0.000	95	768903	10.0	9.69	
129 tert-Butylbenzene	119	14.464	14.464	0.000	92	896073	10.0	10.2	
130 1,2,4-Trimethylbenzene	105	14.551	14.551	0.000	94	740292	10.0	9.55	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
131 sec-Butylbenzene	134	14.864	14.864	0.000	93	231004	10.0	10.0	
132 1,3-Dichlorobenzene	146	15.003	15.003	0.000	97	450969	10.0	10.0	
133 4-Isopropyltoluene	119	15.142	15.142	0.000	96	1023297	10.0	10.3	
134 1,4-Dichlorobenzene	146	15.177	15.177	0.000	94	543838	10.0	10.2	
138 1,2-Dichlorobenzene	146	15.821	15.821	0.000	97	388363	10.0	9.87	
137 n-Butylbenzene	91	15.856	15.856	0.000	97	841598	10.0	9.55	
139 1,2-Dibromo-3-Chloropropan	157	16.934	16.934	0.000	92	35001	10.0	9.16	
141 1,2,4-Trichlorobenzene	180	17.874	17.874	0.000	94	291003	10.0	10.0	
142 Hexachlorobutadiene	225	18.083	18.083	0.000	98	266138	10.0	9.88	
143 Naphthalene	128	18.100	18.100	0.000	97	274441	10.0	10.1	
144 1,2,3-Trichlorobenzene	180	18.344	18.344	0.000	95	224232	10.0	10.1	
S 145 1,2-Dichloroethene, Total	1				0		20.0	21.4	
S 146 Xylenes, Total	106				0		20.0	19.2	
S 147 1,2-Dichloroethene, Total	96				0		20.0	21.4	
S 148 1,3-Dichloropropene, Total	1				0		20.0	19.0	
S 149 Trihalomethanes, Total	1				0		40.0	39.4	
S 150 Xylenes, Total (URS)	1				0		20.0	19.2	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MV-567649-D_00001	Amount Added: 1.00	Units: uL
MV-Main A_00023	Amount Added: 5.00	Units: uL
MV-Gas/Ket A_00034	Amount Added: 5.00	Units: uL
MV-2cleve+AVA_00010	Amount Added: 5.00	Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8585.D

Injection Date: 09-Jun-2015 17:45:30

Instrument ID: VMS_Z

Operator ID: bergerb

Lims ID: CCV

Worklist Smp#: 2

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

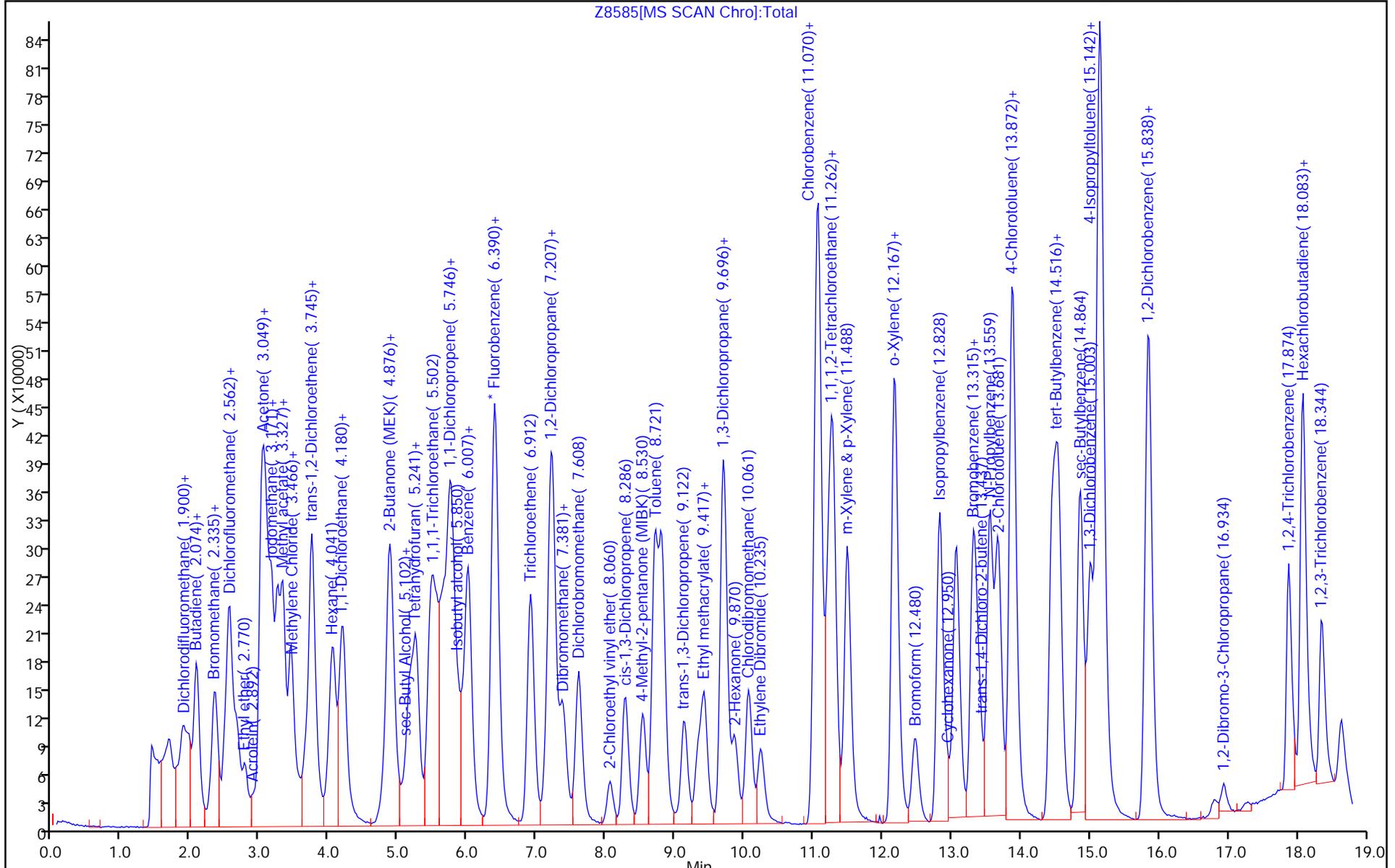
ALS Bottle#: 1

Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8585.D

Injection Date: 09-Jun-2015 17:45:30 Instrument ID: VMS_Z

Lims ID: CCV

Client ID:

Operator ID: bergerb ALS Bottle#: 1 Worklist Smp#: 2

Purge Vol: 20.000 mL Dil. Factor: 1.0000

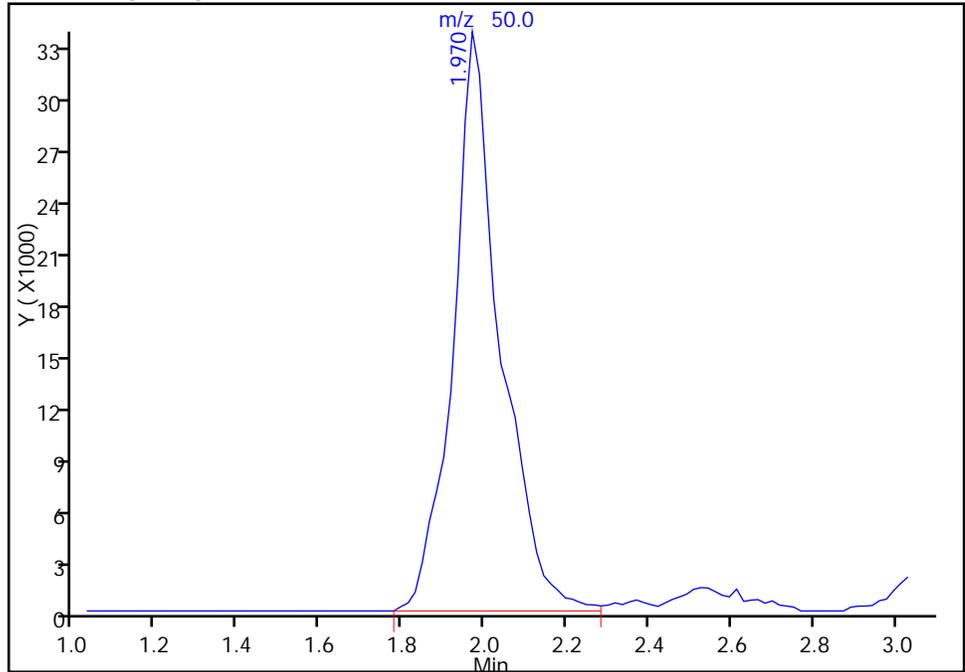
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

30 Chloromethane, CAS: 74-87-3

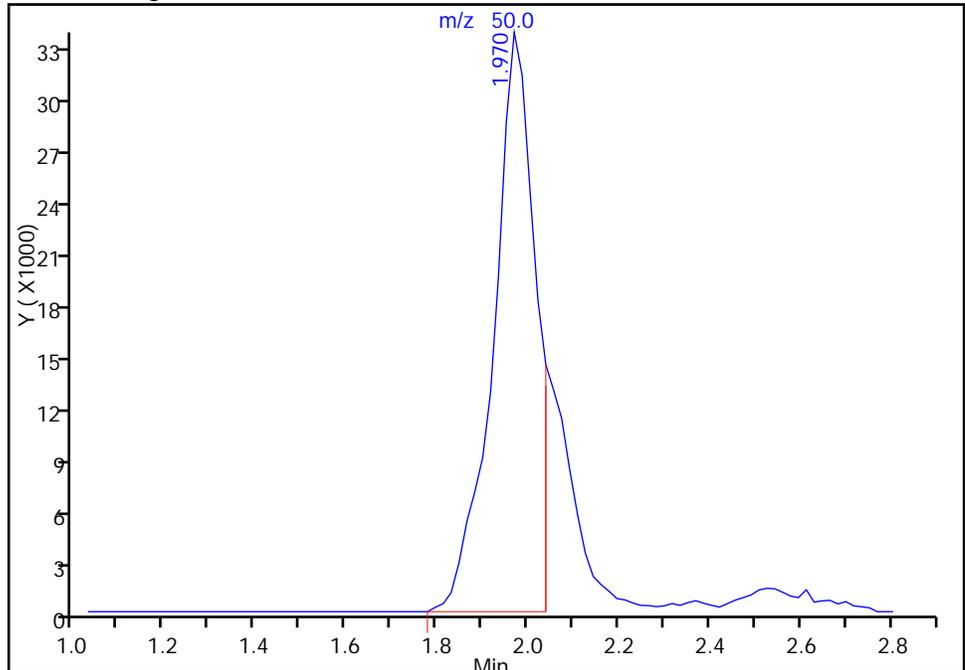
RT: 1.97
Area: 266875
Amount: 11.613955
Amount Units: ug/l

Processing Integration Results



RT: 1.97
Area: 215784
Amount: 9.449758
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 09-Jun-2015 18:12:39
Audit Action: Split an Integrated Peak
Audit Reason: Shouldering

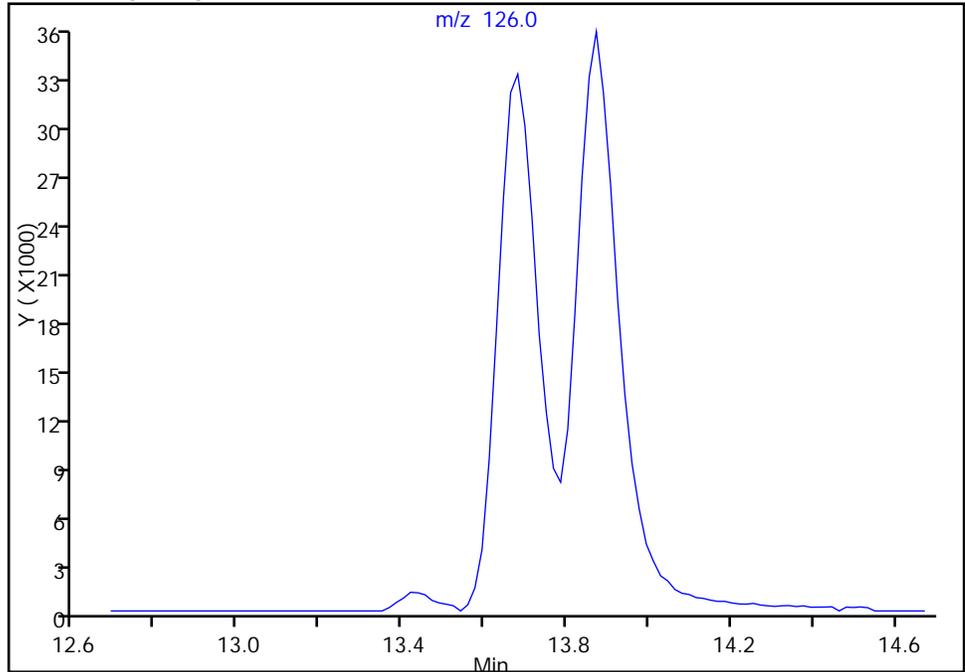
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8585.D
Injection Date: 09-Jun-2015 17:45:30 Instrument ID: VMS_Z
Lims ID: CCV
Client ID:
Operator ID: bergerb ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

126 2-Chlorotoluene, CAS: 95-49-8

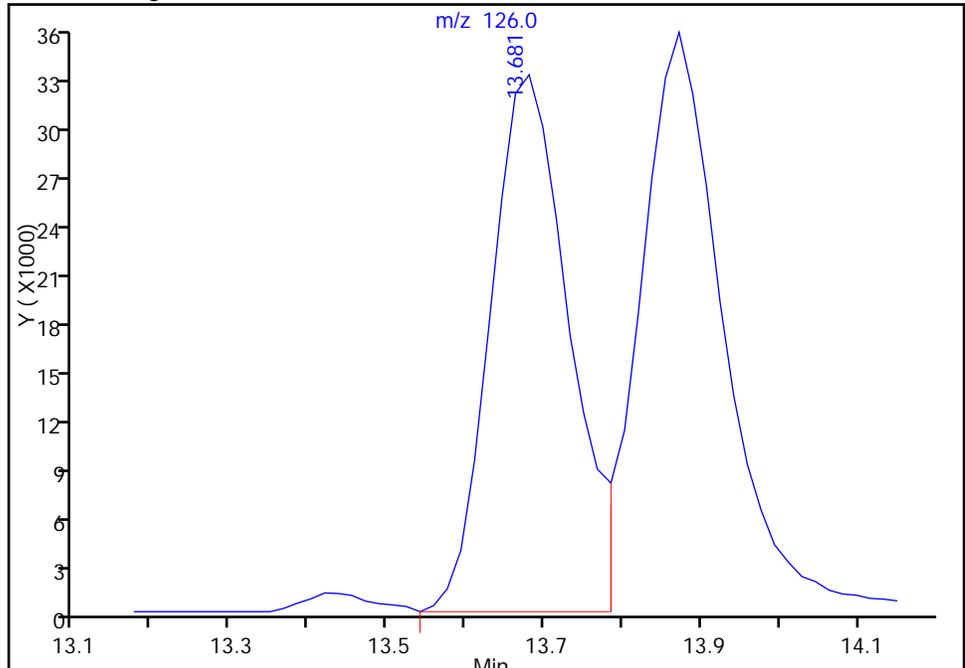
Not Detected
Expected RT: 13.68

Processing Integration Results



RT: 13.68
Area: 233183
Amount: 10.400865
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 09-Jun-2015 18:12:39
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Lab Sample ID: CCV 280-281058/3 Calibration Date: 06/09/2015 18:08
 Instrument ID: VMS_Z Calib Start Date: 04/27/2015 11:28
 GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 04/27/2015 13:21
 Lab File ID: Z8586.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethyl acetate	Ave	0.0878	0.0813			20.0	-7.5	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8586.D
 Lims ID: CCV
 Client ID:
 Sample Type: CCV
 Inject. Date: 09-Jun-2015 18:08:30 ALS Bottle#: 2 Worklist Smp#: 3
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ccv s
 Operator ID: bergerb Instrument ID: VMS_Z
 Sublist: chrom-AQ_VMSZ_8260*sub111
 Method: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\AQ_VMSZ_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 10-Jun-2015 15:47:52 Calib Date: 02-Jun-2015 01:06:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8233.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK012

First Level Reviewer: bergerb

Date: 10-Jun-2015 15:47:52

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.483	3.483	0.000	91	148382	250.0	250.0	
* 2 Fluorobenzene	96	6.389	6.389	0.000	99	808191	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.018	11.018	0.000	83	216968	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.124	15.124	0.000	96	333445	12.5	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.467	5.467	0.000	94	444201	10.5	11.5	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	5.902	5.902	0.000	93	152283	10.5	10.4	
\$ 10 Toluene-d8 (Surr)	98	8.721	8.721	0.000	92	762765	10.5	10.8	
\$ 11 4-Bromofluorobenzene (Surr	95	13.071	13.071	0.000	94	423901	10.5	11.2	
34 Ethylene oxide	43	2.300	2.300	0.000	98	544729	2000.0	1896.3	
39 Ethanol	45	2.840	2.840	0.000	16	12926	500.0	444.5	M
42 Propene oxide	58	2.874	2.874	0.000	96	645892	500.0	509.1	
47 Isopropyl alcohol	45	3.188	3.188	0.000	21	18728	100.0	69.8	a
53 Acetonitrile	41	3.327	3.327	0.000	97	32534	125.0	112.4	M
60 Isopropyl ether	87	4.301	4.301	0.000	98	191429	12.5	12.5	
63 2-Chloro-1,3-butadiene	53	4.319	4.319	0.000	88	264780	10.0	8.75	
64 Tert-butyl ethyl ether	59	4.736	4.736	0.000	98	640845	12.5	12.0	
69 Propionitrile	54	4.928	4.928	0.000	49	60955	125.0	131.0	
68 Ethyl acetate	43	4.945	4.945	0.000	98	105084	NC	NC	
73 Methacrylonitrile	41	5.119	5.119	0.000	89	308536	100.0	94.6	
83 Tert-amyl methyl ether	73	6.198	6.198	0.000	97	488532	12.5	11.3	
88 Ethyl acrylate	55	6.789	6.789	0.000	1	3221	NC	NC	
86 n-Butanol	56	6.807	6.807	0.000	84	35326	250.0	260.1	
91 Methyl methacrylate	100	7.398	7.398	0.000	87	57250	20.0	22.2	
95 2-Nitropropane	41	7.903	7.903	0.000	97	20558	20.0	17.6	
106 Tetrahydrothiophene	60	10.043	10.043	0.000	94	48455	10.0	8.55	
120 cis-1,4-Dichloro-2-butene	53	12.897	12.897	0.000	0	25633	10.0	8.14	
135 1,2,3-Trimethylbenzene	105	15.281	15.281	0.000	96	624494	10.0	9.44	
140 1,3,5-Trichlorobenzene	180	17.212	17.212	0.000	97	379208	10.0	10.0	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MV-Supp A_00011	Amount Added: 5.00	Units: uL	
MV-567649-D_00001	Amount Added: 1.00	Units: uL	Run Reagent
MV-ARCH SS A_00047	Amount Added: 0.84	Units: uL	Run Reagent

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8586.D

Injection Date: 09-Jun-2015 18:08:30

Instrument ID: VMS_Z

Operator ID: bergerb

Lims ID: CCV

Worklist Smp#: 3

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

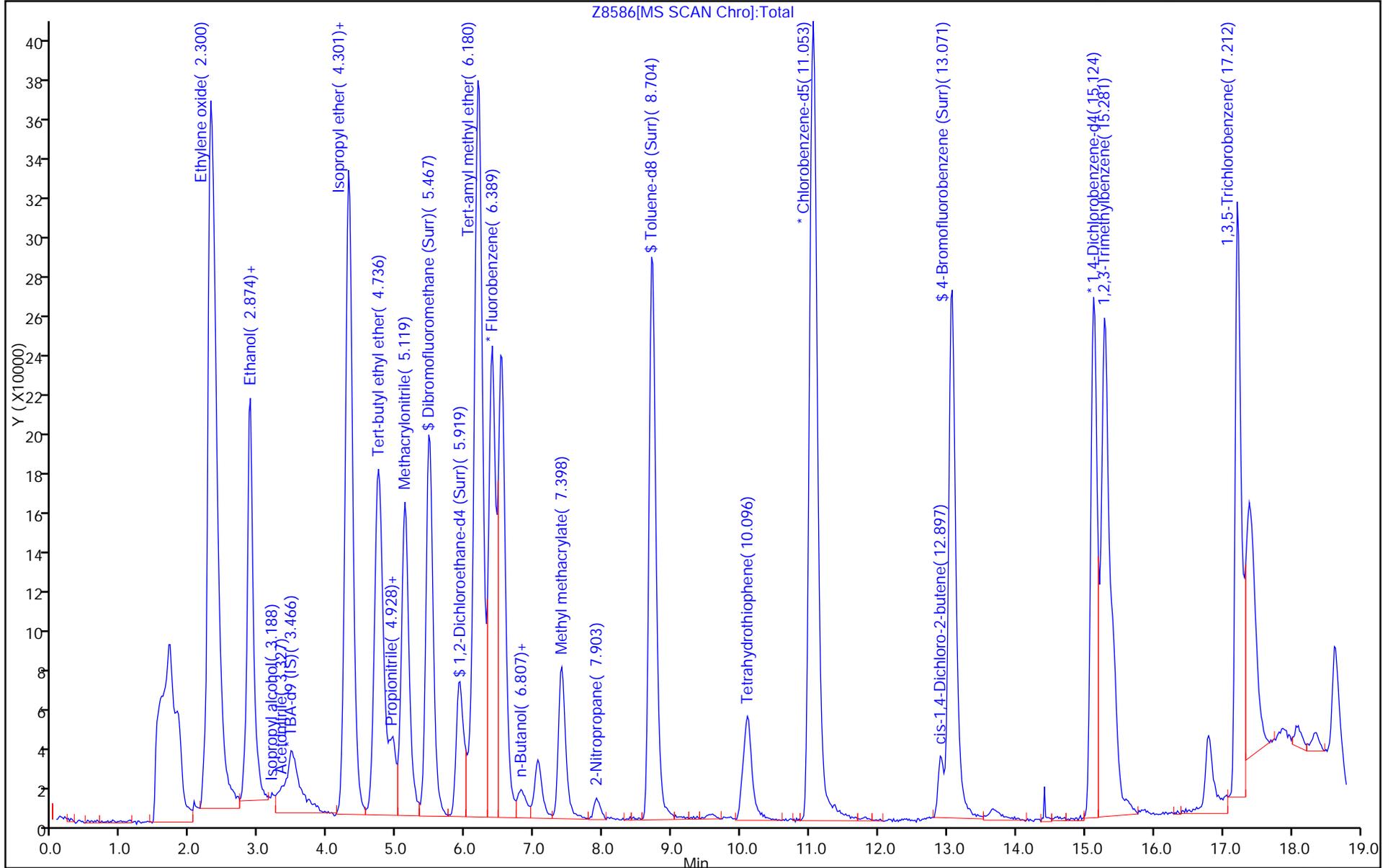
ALS Bottle#: 2

Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Lab Sample ID: CCV 280-281058/3 Calibration Date: 06/09/2015 18:08
 Instrument ID: VMS_Z Calib Start Date: 06/01/2015 19:51
 GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 06/02/2015 01:06
 Lab File ID: Z8586.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol	Lin1		0.0004		445	500	-11.1	20.0
Isopropyl alcohol	Lin1		0.0029		69.8	100	-30.2*	20.0
Acetonitrile	Lin2		0.0040		112	125	-10.1	20.0
Isopropyl ether	Ave	0.2360	0.2369		12.5	12.5	0.4	20.0
2-Chloro-1,3-butadiene	Ave	0.4679	0.4095		8.75	10.0	-12.5	20.0
Tert-butyl ethyl ether	Ave	0.8270	0.7929		12.0	12.5	-4.1	20.0
Propionitrile	Ave	0.0072	0.0075		131	125	4.8	20.0
Methacrylonitrile	Ave	0.0504	0.0477		94.6	100	-5.4	20.0
Tert-amyl methyl ether	Ave	0.6662	0.6045		11.3	12.5	-9.3	20.0
n-Butanol	Ave	0.0021	0.0022		260	250	4.0	20.0
Methyl methacrylate	Ave	0.0400	0.0443		22.2	20.0	10.8	20.0
2-Nitropropane	Ave	0.0181	0.0159		17.6	20.0	-12.1	20.0
cis-1,4-Dichloro-2-butene	Ave	0.1181	0.0961		8.14	10.0	-18.6	20.0
1,2,3-Trimethylbenzene	Ave	2.481	2.341		9.44	10.0	-5.6	20.0
Dibromofluoromethane (Surr)	Ave	0.5973	0.6543		11.5	10.5	9.5	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2270	0.2243		10.4	10.5	-1.2	20.0
Toluene-d8 (Surr)	Ave	4.060	4.185		10.8	10.5	3.1	20.0
4-Bromofluorobenzene (Surr)	Ave	1.417	1.513		11.2	10.5	6.8	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8586.D
 Lims ID: CCV
 Client ID:
 Sample Type: CCV
 Inject. Date: 09-Jun-2015 18:08:30 ALS Bottle#: 2 Worklist Smp#: 3
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ccv s
 Operator ID: bergerb Instrument ID: VMS_Z
 Sublist: chrom-AQ_VMSZ_8260*sub111
 Method: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\AQ_VMSZ_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 10-Jun-2015 15:47:52 Calib Date: 02-Jun-2015 01:06:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8233.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK012

First Level Reviewer: bergerb

Date: 10-Jun-2015 15:47:52

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.483	3.483	0.000	91	148382	250.0	250.0	
* 2 Fluorobenzene	96	6.389	6.389	0.000	99	808191	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.018	11.018	0.000	83	216968	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.124	15.124	0.000	96	333445	12.5	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.467	5.467	0.000	94	444201	10.5	11.5	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	5.902	5.902	0.000	93	152283	10.5	10.4	
\$ 10 Toluene-d8 (Surr)	98	8.721	8.721	0.000	92	762765	10.5	10.8	
\$ 11 4-Bromofluorobenzene (Surr	95	13.071	13.071	0.000	94	423901	10.5	11.2	
34 Ethylene oxide	43	2.300	2.300	0.000	98	544729	2000.0	1896.3	
39 Ethanol	45	2.840	2.840	0.000	16	12926	500.0	444.5	M
42 Propene oxide	58	2.874	2.874	0.000	96	645892	500.0	509.1	
47 Isopropyl alcohol	45	3.188	3.188	0.000	21	18728	100.0	69.8	a
53 Acetonitrile	41	3.327	3.327	0.000	97	32534	125.0	112.4	M
60 Isopropyl ether	87	4.301	4.301	0.000	98	191429	12.5	12.5	
63 2-Chloro-1,3-butadiene	53	4.319	4.319	0.000	88	264780	10.0	8.75	
64 Tert-butyl ethyl ether	59	4.736	4.736	0.000	98	640845	12.5	12.0	
69 Propionitrile	54	4.928	4.928	0.000	49	60955	125.0	131.0	
68 Ethyl acetate	43	4.945	4.945	0.000	98	105084	NC	NC	
73 Methacrylonitrile	41	5.119	5.119	0.000	89	308536	100.0	94.6	
83 Tert-amyl methyl ether	73	6.198	6.198	0.000	97	488532	12.5	11.3	
88 Ethyl acrylate	55	6.789	6.789	0.000	1	3221	NC	NC	
86 n-Butanol	56	6.807	6.807	0.000	84	35326	250.0	260.1	
91 Methyl methacrylate	100	7.398	7.398	0.000	87	57250	20.0	22.2	
95 2-Nitropropane	41	7.903	7.903	0.000	97	20558	20.0	17.6	
106 Tetrahydrothiophene	60	10.043	10.043	0.000	94	48455	10.0	8.55	
120 cis-1,4-Dichloro-2-butene	53	12.897	12.897	0.000	0	25633	10.0	8.14	
135 1,2,3-Trimethylbenzene	105	15.281	15.281	0.000	96	624494	10.0	9.44	
140 1,3,5-Trichlorobenzene	180	17.212	17.212	0.000	97	379208	10.0	10.0	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MV-Supp A_00011	Amount Added: 5.00	Units: uL	
MV-567649-D_00001	Amount Added: 1.00	Units: uL	Run Reagent
MV-ARCH SS A_00047	Amount Added: 0.84	Units: uL	Run Reagent

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8586.D

Injection Date: 09-Jun-2015 18:08:30

Instrument ID: VMS_Z

Operator ID: bergerb

Lims ID: CCV

Worklist Smp#: 3

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

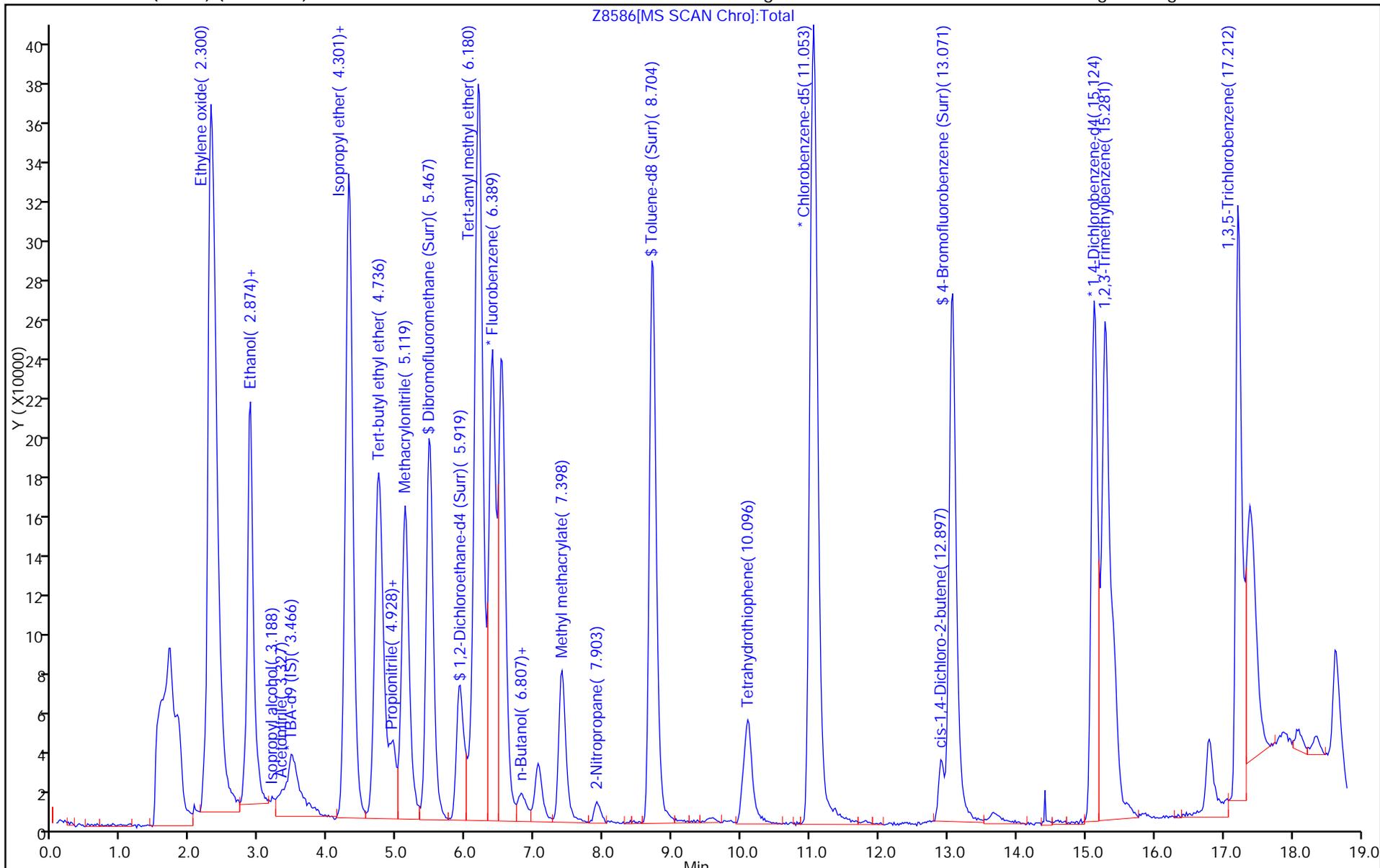
ALS Bottle#: 2

Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



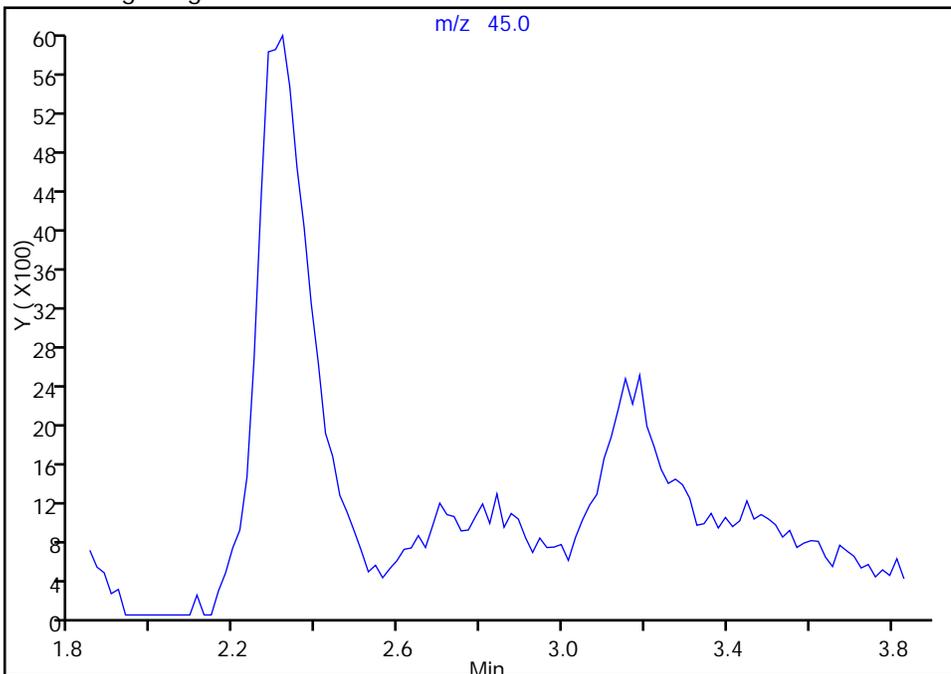
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8586.D
Injection Date: 09-Jun-2015 18:08:30 Instrument ID: VMS_Z
Lims ID: CCV
Client ID:
Operator ID: bergerb ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector MS SCAN

39 Ethanol, CAS: 64-17-5

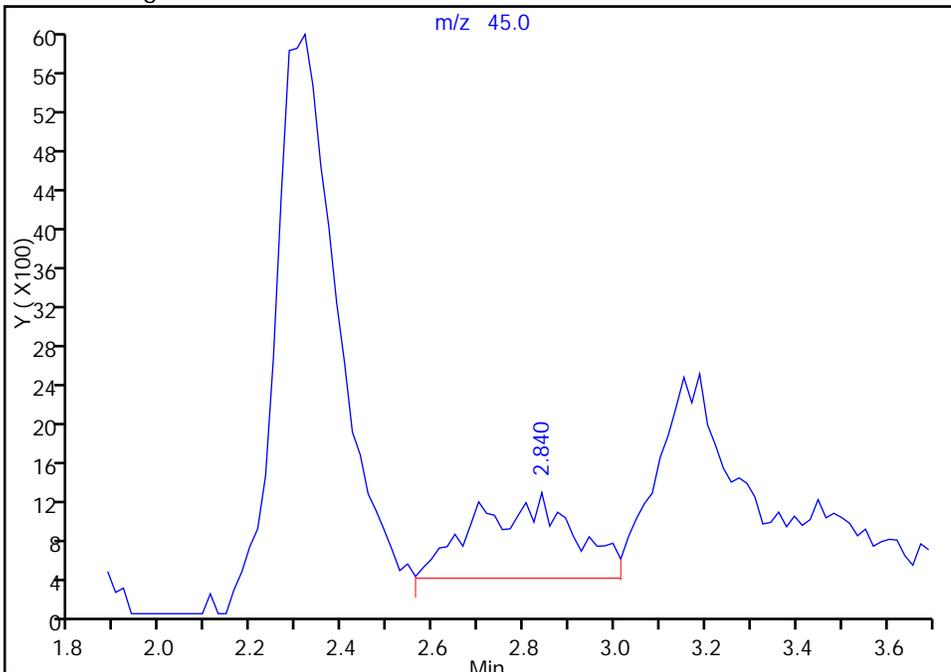
Not Detected
Expected RT: 2.84

Processing Integration Results



Manual Integration Results

RT: 2.84
Area: 12926
Amount: 444.5049
Amount Units: ug/l



Reviewer: bergerb, 09-Jun-2015 21:20:33
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

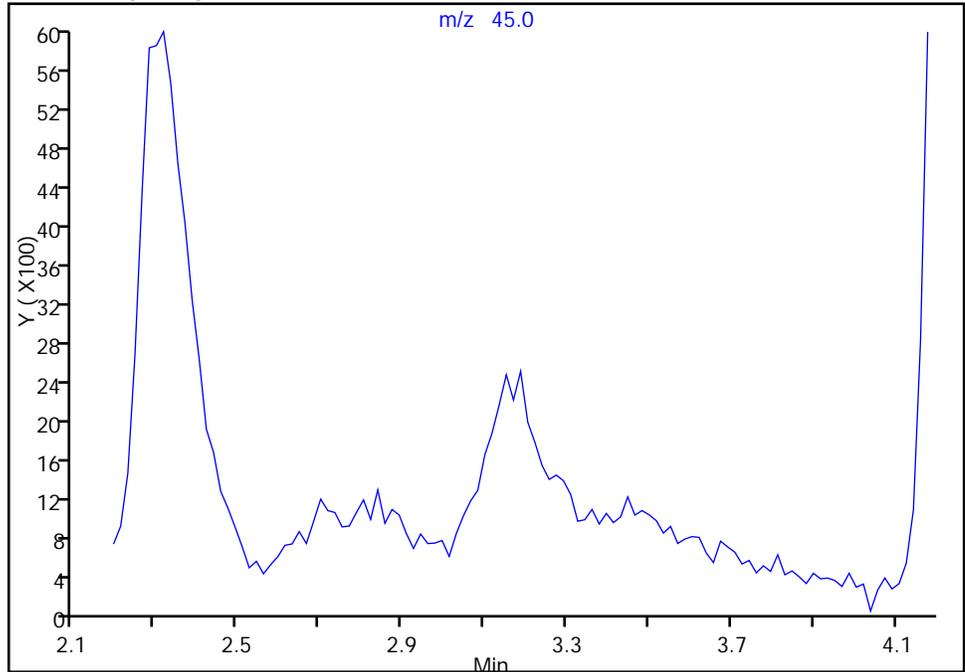
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8586.D
Injection Date: 09-Jun-2015 18:08:30 Instrument ID: VMS_Z
Lims ID: CCV
Client ID:
Operator ID: bergerb ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

47 Isopropyl alcohol, CAS: 67-63-0

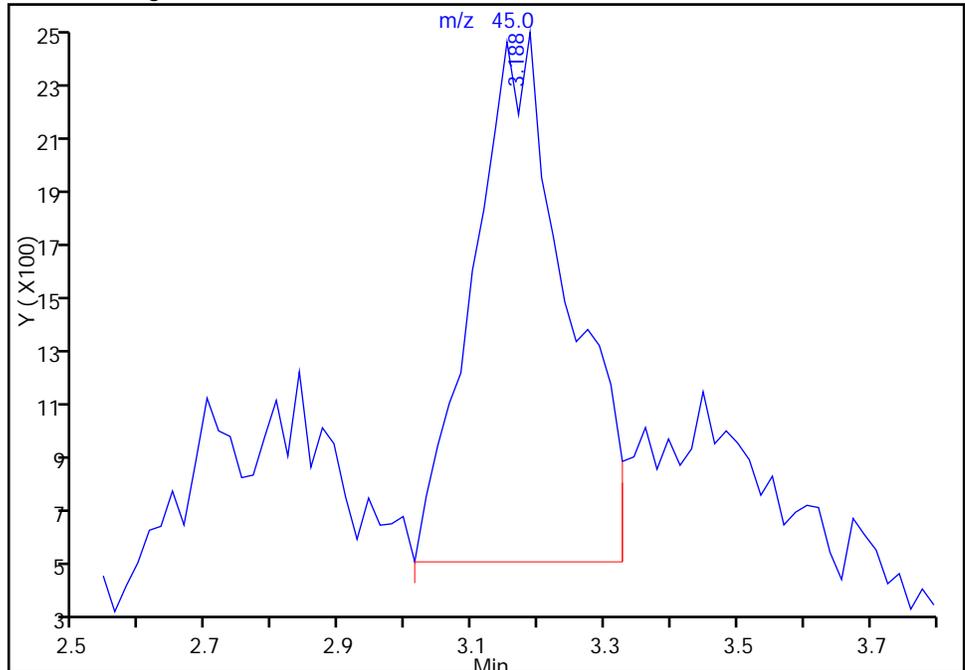
Not Detected
Expected RT: 3.19

Processing Integration Results



RT: 3.19
Area: 18728
Amount: 69.806389
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 09-Jun-2015 21:20:33
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

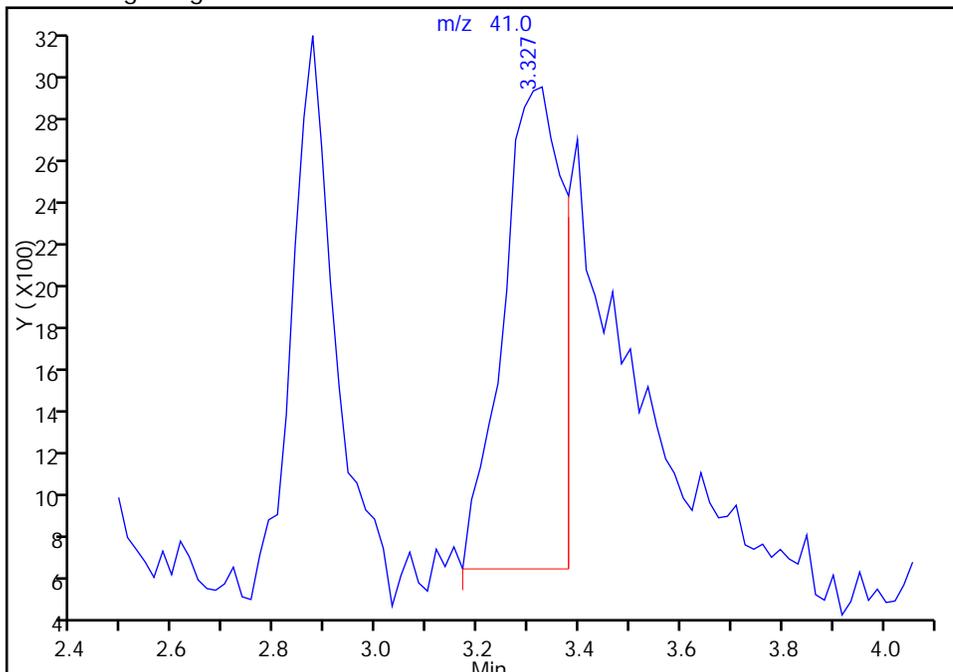
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8586.D
Injection Date: 09-Jun-2015 18:08:30 Instrument ID: VMS_Z
Lims ID: CCV
Client ID:
Operator ID: bergerb ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

53 Acetonitrile, CAS: 75-05-8

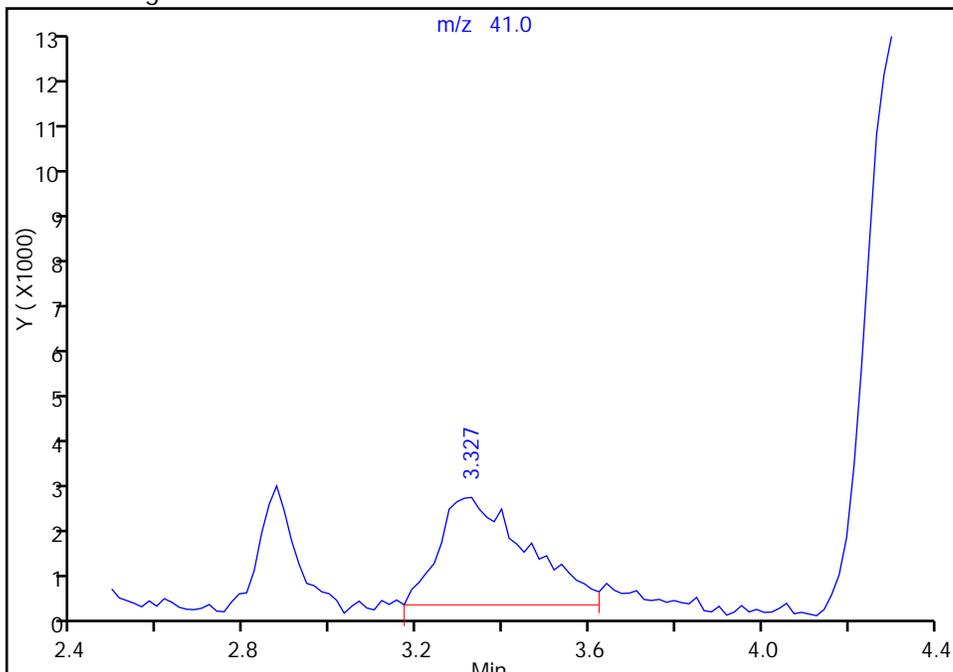
RT: 3.33
Area: 18914
Amount: 72.728658
Amount Units: ug/l

Processing Integration Results



RT: 3.33
Area: 32534
Amount: 112.3605
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 09-Jun-2015 21:20:33
Audit Action: Split an Integrated Peak
Audit Reason: Split Peak

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Lab Sample ID: CCVC 280-281058/17 Calibration Date: 06/09/2015 23:13
 Instrument ID: VMS_Z Calib Start Date: 04/06/2015 23:25
 GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 04/07/2015 01:41
 Lab File ID: Z8599.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Lin2		0.0006			200		50.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8599.D
 Lims ID: ccvc
 Client ID:
 Sample Type: CCVC
 Inject. Date: 09-Jun-2015 23:13:30 ALS Bottle#: 15 Worklist Smp#: 17
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ccvc
 Operator ID: bergerb Instrument ID: VMS_Z
 Sublist: chrom-AQ_VMSZ_8260*sub71
 Method: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\AQ_VMSZ_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 10-Jun-2015 15:45:19 Calib Date: 02-Jun-2015 01:06:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8233.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK012

First Level Reviewer: bergerb Date: 10-Jun-2015 15:45:19

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.479	3.479	0.000	60	136631	250.0	250.0	
* 2 Fluorobenzene	96	6.384	6.384	0.000	98	795408	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.013	11.013	0.000	85	199142	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.120	15.120	0.000	95	324891	12.5	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.462	5.462	0.000	95	419598	10.5	11.0	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	5.897	5.897	0.000	94	149432	10.5	10.3	
\$ 10 Toluene-d8 (Surr)	98	8.699	8.699	0.000	92	717928	10.5	11.1	
\$ 11 4-Bromofluorobenzene (Surr	95	13.049	13.049	0.000	91	386291	10.5	10.5	
27 Dichlorodifluoromethane	85	1.913	1.913	0.000	99	354579	10.0	11.1	
30 Chloromethane	50	1.982	1.982	0.000	99	210824	10.0	9.86	M
31 Butadiene	54	2.087	2.087	0.000	82	145896	NC	NC	
32 Vinyl chloride	62	2.104	2.104	0.000	98	227751	10.0	10.4	
35 Bromomethane	94	2.330	2.330	0.000	89	228815	10.0	10.7	
36 Chloroethane	64	2.382	2.382	0.000	98	151478	10.0	11.1	
37 Dichlorofluoromethane	67	2.539	2.539	0.000	97	556580	10.0	10.8	
38 Trichlorofluoromethane	101	2.591	2.591	0.000	99	475798	10.0	10.0	
40 Ethyl ether	59	2.800	2.800	0.000	90	95485	10.0	9.28	
44 Acrolein	56	2.904	2.904	0.000	99	49009	100.0	106.7	
45 1,1-Dichloroethene	96	3.026	3.026	0.000	99	249075	10.0	11.6	
48 Acetone	43	3.026	3.026	0.000	28	41228	40.0	35.3	
46 1,1,2-Trichloro-1,2,2-trif	151	3.078	3.078	0.000	96	358406	10.0	10.9	
49 Iodomethane	142	3.183	3.183	0.000	99	621841	10.0	10.7	
50 Carbon disulfide	76	3.270	3.270	0.000	98	886839	10.0	10.6	
52 3-Chloro-1-propene	41	3.339	3.339	0.000	86	313082	10.0	9.17	
51 Methyl acetate	43	3.339	3.339	0.000	70	213074	50.0	43.1	
54 Methylene Chloride	84	3.461	3.461	0.000	90	200126	10.0	10.4	
55 2-Methyl-2-propanol	59	3.566	3.566	0.000	96	47286	100.0	122.7	
58 Acrylonitrile	53	3.670	3.670	0.000	98	147643	100.0	96.2	
57 trans-1,2-Dichloroethene	96	3.757	3.757	0.000	99	253117	10.0	10.7	
56 Methyl tert-butyl ether	73	3.774	3.774	0.000	94	315872	10.0	9.96	
59 Hexane	57	4.053	4.053	0.000	90	297021	10.0	8.40	M

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
62 1,1-Dichloroethane	63	4.192	4.192	0.000	95	417188	10.0	9.45	M
61 Vinyl acetate	43	4.209	4.209	0.000	96	368210	20.0	16.2	
67 2-Butanone (MEK)	43	4.853	4.853	0.000	40	89765	40.0	36.5	
65 cis-1,2-Dichloroethene	96	4.871	4.871	0.000	83	247723	10.0	10.7	
66 2,2-Dichloropropane	77	4.888	4.888	0.000	86	402083	10.0	10.2	
70 sec-Butyl Alcohol	45	5.097	5.097	0.000	95	127462	300.0	275.9	
71 Chlorobromomethane	128	5.166	5.166	0.000	88	133207	10.0	11.1	
72 Tetrahydrofuran	42	5.253	5.253	0.000	36	26456	20.0	17.0	
74 Chloroform	83	5.253	5.253	0.000	94	416553	10.0	10.1	
75 1,1,1-Trichloroethane	97	5.549	5.549	0.000	99	405061	10.0	10.4	
76 Cyclohexane	56	5.636	5.636	0.000	89	376815	10.0	10.2	
78 1,1-Dichloropropene	75	5.741	5.741	0.000	99	345816	10.0	9.87	
77 Carbon tetrachloride	117	5.775	5.775	0.000	97	423073	10.0	10.1	
80 Isobutyl alcohol	41	5.862	5.862	0.000	94	35448	250.0	214.1	
82 1,2-Dichloroethane	62	6.002	6.002	0.000	54	159174	10.0	9.19	
81 Benzene	78	6.002	6.002	0.000	95	652535	10.0	10.7	
84 n-Heptane	43	6.402	6.402	0.000	90	372895	10.0	9.69	
85 Trichloroethene	95	6.907	6.907	0.000	95	298616	10.0	10.5	
89 2-Pentanone	43	7.133	7.133	0.000	99	197159	40.0	34.6	
90 1,2-Dichloropropane	63	7.202	7.202	0.000	96	229315	10.0	9.21	
87 Methylcyclohexane	55	7.220	7.220	0.000	91	326935	10.0	10.2	
92 Dibromomethane	93	7.376	7.376	0.000	93	132440	10.0	9.68	
93 1,4-Dioxane	88	7.429	7.429	0.000	5	7250	NC	NC	
94 Dichlorobromomethane	83	7.603	7.603	0.000	100	355349	10.0	10.2	
96 2-Chloroethyl vinyl ether	63	8.055	8.055	0.000	92	72642	10.0	8.63	
97 cis-1,3-Dichloropropene	75	8.264	8.264	0.000	98	298692	10.0	9.21	
98 4-Methyl-2-pentanone (MIBK)	43	8.525	8.525	0.000	95	283281	40.0	37.5	
99 Toluene	91	8.803	8.803	0.000	99	696495	10.0	10.0	
100 trans-1,3-Dichloropropene	75	9.116	9.116	0.000	90	202931	10.0	9.49	
101 Ethyl methacrylate	69	9.325	9.325	0.000	84	154580	10.0	8.08	
102 1,1,2-Trichloroethane	97	9.412	9.412	0.000	90	132875	10.0	10.2	
104 1,3-Dichloropropane	76	9.673	9.673	0.000	88	209338	10.0	9.01	
103 Tetrachloroethene	164	9.708	9.708	0.000	97	298816	10.0	10.7	
105 2-Hexanone	43	9.865	9.865	0.000	94	176956	40.0	35.2	
107 Chlorodibromomethane	129	10.056	10.056	0.000	90	278828	10.0	9.71	
109 Ethylene Dibromide	107	10.230	10.230	0.000	99	185515	10.0	9.35	
111 Chlorobenzene	112	11.065	11.065	0.000	94	561598	10.0	10.6	
110 1-Chlorohexane	91	11.065	11.065	0.000	73	338605	10.0	9.47	
113 1,1,1,2-Tetrachloroethane	131	11.222	11.222	0.000	96	263012	10.0	10.1	
112 Ethylbenzene	106	11.274	11.274	0.000	98	258295	10.0	10.2	
114 m-Xylene & p-Xylene	106	11.483	11.483	0.000	97	343487	10.0	10.1	
115 o-Xylene	106	12.162	12.162	0.000	96	298655	10.0	10.0	
116 Styrene	104	12.179	12.179	0.000	94	499687	10.0	10.2	
117 Bromoform	173	12.457	12.457	0.000	98	159541	10.0	9.63	
118 Isopropylbenzene	105	12.823	12.823	0.000	95	963775	10.0	9.97	
119 Cyclohexanone	55	12.945	12.945	0.000	89	75305	400.0	352.3	
121 Bromobenzene	156	13.293	13.293	0.000	94	252986	10.0	10.3	
122 1,1,2,2-Tetrachloroethane	83	13.310	13.310	0.000	94	169039	10.0	9.38	
124 1,2,3-Trichloropropane	110	13.362	13.362	0.000	80	40384	10.0	8.14	
125 trans-1,4-Dichloro-2-buten	53	13.414	13.414	0.000	78	30458	10.0	8.81	
123 N-Propylbenzene	120	13.536	13.536	0.000	98	265362	10.0	10.7	
126 2-Chlorotoluene	126	13.658	13.658	0.000	88	216199	10.0	10.5	a

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
128 4-Chlorotoluene	126	13.849	13.849	0.000	97	242194	10.0	10.1	
127 1,3,5-Trimethylbenzene	105	13.867	13.867	0.000	95	730030	10.0	9.99	
129 tert-Butylbenzene	119	14.441	14.441	0.000	93	861282	10.0	10.7	
130 1,2,4-Trimethylbenzene	105	14.528	14.528	0.000	95	707344	10.0	9.91	
131 sec-Butylbenzene	134	14.841	14.841	0.000	93	221171	10.0	10.4	
132 1,3-Dichlorobenzene	146	14.998	14.998	0.000	96	431838	10.0	10.4	
133 4-Isopropyltoluene	119	15.120	15.120	0.000	97	991917	10.0	10.9	
134 1,4-Dichlorobenzene	146	15.154	15.154	0.000	95	505573	10.0	10.3	
138 1,2-Dichlorobenzene	146	15.798	15.798	0.000	97	366442	10.0	10.1	
137 n-Butylbenzene	91	15.850	15.850	0.000	97	814176	10.0	10.0	
139 1,2-Dibromo-3-Chloropropan	157	16.929	16.929	0.000	90	29557	10.0	8.40	
141 1,2,4-Trichlorobenzene	180	17.869	17.869	0.000	94	267074	10.0	9.97	
142 Hexachlorobutadiene	225	18.060	18.060	0.000	98	253261	10.0	10.2	
143 Naphthalene	128	18.095	18.095	0.000	97	243050	10.0	9.71	
144 1,2,3-Trichlorobenzene	180	18.339	18.339	0.000	96	202066	10.0	9.84	
S 145 1,2-Dichloroethene, Total	1				0		20.0	21.4	
S 146 Xylenes, Total	106				0		20.0	20.1	
S 147 1,2-Dichloroethene, Total	96				0		20.0	21.4	
S 148 1,3-Dichloropropene, Total	1				0		20.0	18.7	
S 149 Trihalomethanes, Total	1				0		40.0	39.6	
S 150 Xylenes, Total (URS)	1				0		20.0	20.1	
S 151 Total BTEX	1				0			51.0	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MV-Main A_00023	Amount Added: 5.00	Units: uL	
MV-Gas/Ket A_00034	Amount Added: 5.00	Units: uL	
MV-2cleve+AVA_00010	Amount Added: 5.00	Units: uL	
MV-567649-D_00001	Amount Added: 1.00	Units: uL	Run Reagent
MV-ARCH SS A_00047	Amount Added: 0.84	Units: uL	Run Reagent

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8599.D

Injection Date: 09-Jun-2015 23:13:30

Instrument ID: VMS_Z

Operator ID: bergerb

Lims ID: ccvc

Worklist Smp#: 17

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

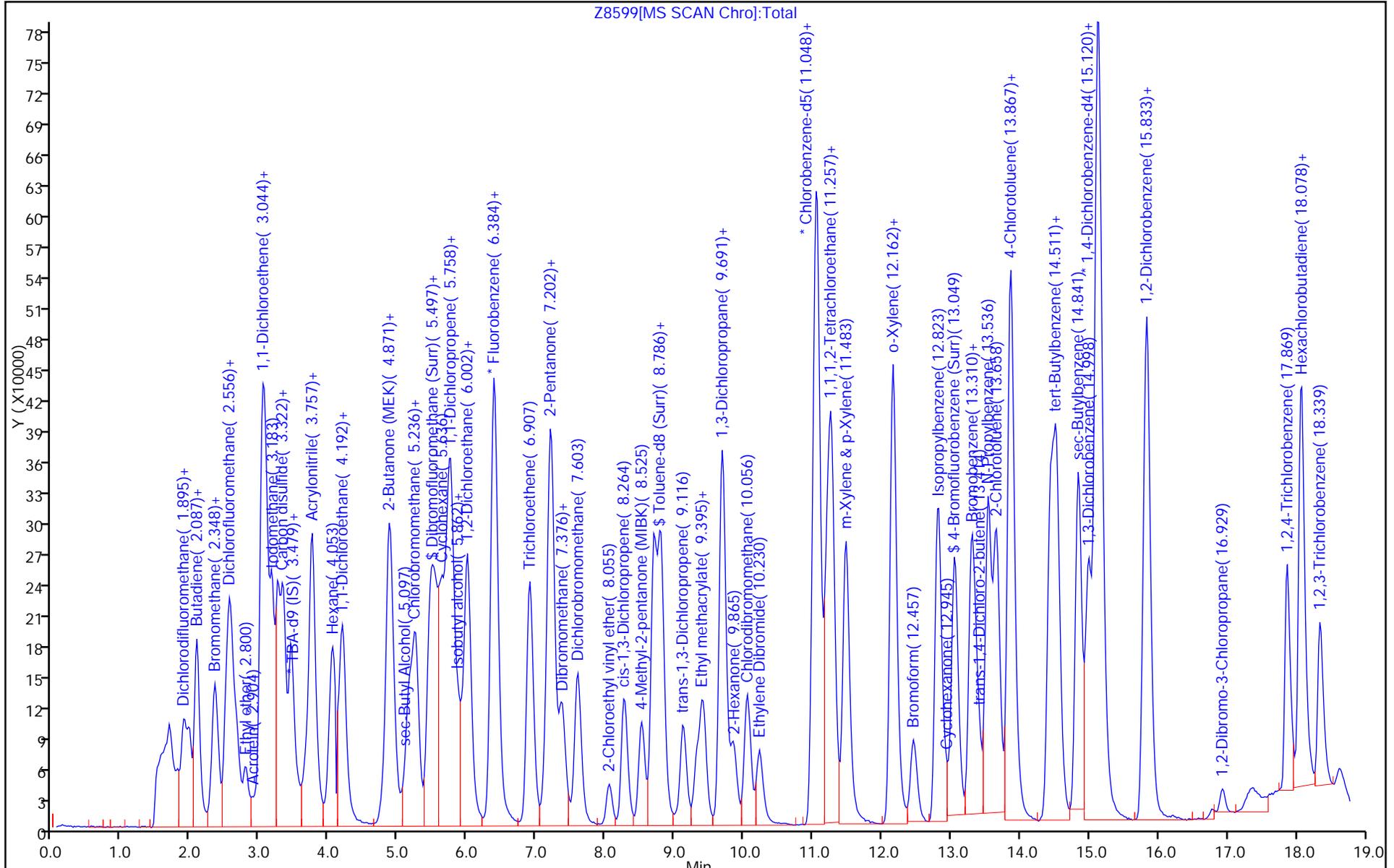
ALS Bottle#: 15

Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Lab Sample ID: CCVC 280-281058/17 Calibration Date: 06/09/2015 23:13
 Instrument ID: VMS_Z Calib Start Date: 06/01/2015 19:51
 GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 06/02/2015 01:06
 Lab File ID: Z8599.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Lin1		0.5572		11.1	10.0	11.4	50.0
Chloromethane	Lin2		0.3313	0.1000	9.86	10.0	-1.4	50.0
Vinyl chloride	Ave	0.3427	0.3579		10.4	10.0	4.4	50.0
Bromomethane	Ave	0.3363	0.3596		10.7	10.0	6.9	50.0
Chloroethane	Ave	0.2135	0.2381		11.1	10.0	11.5	50.0
Dichlorofluoromethane	Ave	0.8126	0.8747		10.8	10.0	7.6	50.0
Trichlorofluoromethane	Ave	0.7478	0.7477		10.0	10.0	-0.0	50.0
Ethyl ether	Ave	0.1616	0.1501		9.28	10.0	-7.2	50.0
Acrolein	Lin1		0.0077		107	100	6.7	50.0
1,1-Dichloroethene	Ave	0.3376	0.3914		11.6	10.0	15.9	50.0
Acetone	Ave	0.0183	0.0162		35.3	40.0	-11.7	50.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.5179	0.5632		10.9	10.0	8.7	50.0
Iodomethane	Ave	0.9161	0.9772		10.7	10.0	6.7	50.0
Carbon disulfide	Ave	1.312	1.394		10.6	10.0	6.2	50.0
3-Chloro-1-propene	Ave	0.5363	0.4920		9.17	10.0	-8.3	50.0
Methyl acetate	Ave	0.0777	0.0670		43.1	50.0	-13.8	50.0
Methylene Chloride	Ave	0.3011	0.3145		10.4	10.0	4.4	50.0
tert-Butyl alcohol	Ave	0.7050	0.8652		123	100	22.7	50.0
Acrylonitrile	Ave	0.0241	0.0232		96.2	100	-3.8	50.0
trans-1,2-Dichloroethene	Ave	0.3717	0.3978		10.7	10.0	7.0	50.0
Methyl tert-butyl ether	Ave	0.4982	0.4964		9.96	10.0	-0.4	50.0
Hexane	Ave	2.220	1.864		8.40	10.0	-16.0	50.0
1,1-Dichloroethane	Ave	0.6940	0.6556	0.1000	9.45	10.0	-5.5	50.0
Vinyl acetate	Ave	0.3571	0.2893		16.2	20.0	-19.0	50.0
2-Butanone (MEK)	Ave	0.0386	0.0353		36.5	40.0	-8.7	50.0
cis-1,2-Dichloroethene	Ave	0.3655	0.3893		10.7	10.0	6.5	50.0
2,2-Dichloropropane	Lin2		0.6319		10.2	10.0	1.9	50.0
sec-Butyl Alcohol	Ave	0.8452	0.7774		276	300	-8.0	50.0
Bromochloromethane	Ave	0.1879	0.2093		11.1	10.0	11.4	50.0
Chloroform	Ave	0.6477	0.6546		10.1	10.0	1.1	50.0
Tetrahydrofuran	Ave	0.0244	0.0208		17.0	20.0	-14.9	50.0
1,1,1-Trichloroethane	Ave	0.6114	0.6366		10.4	10.0	4.1	50.0
Cyclohexane	Ave	0.5805	0.5922		10.2	10.0	2.0	50.0
1,1-Dichloropropene	Ave	0.5506	0.5435		9.87	10.0	-1.3	50.0
Carbon tetrachloride	Ave	0.6578	0.6649		10.1	10.0	1.1	50.0
Isobutyl alcohol	Ave	0.3029	0.2594		214	250	-14.4	50.0
1,2-Dichloroethane	Ave	0.2721	0.2502		9.19	10.0	-8.1	50.0
Benzene	Ave	0.9627	1.025		10.7	10.0	6.5	50.0
Trichloroethene	Ave	0.4452	0.4693		10.5	10.0	5.4	50.0
2-Pentanone	Ave	0.0895	0.0775		34.6	40.0	-13.4	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Lab Sample ID: CCVC 280-281058/17 Calibration Date: 06/09/2015 23:13
 Instrument ID: VMS_Z Calib Start Date: 06/01/2015 19:51
 GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 06/02/2015 01:06
 Lab File ID: Z8599.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.3913	0.3604		9.21	10.0	-7.9	50.0
Methylcyclohexane	Ave	0.5031	0.5138		10.2	10.0	2.1	50.0
Dibromomethane	Ave	0.2151	0.2081		9.68	10.0	-3.2	50.0
Bromodichloromethane	Ave	0.5496	0.5584		10.2	10.0	1.6	50.0
2-Chloroethyl vinyl ether	Ave	0.1323	0.1142		8.63	10.0	-13.7	50.0
cis-1,3-Dichloropropene	Ave	2.036	1.875		9.21	10.0	-7.9	50.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1188	0.1113		37.5	40.0	-6.3	50.0
Toluene	Ave	1.091	1.095		10.0	10.0	0.3	50.0
trans-1,3-Dichloropropene	Ave	0.3360	0.3189		9.49	10.0	-5.1	50.0
Ethyl methacrylate	Ave	1.201	0.9703		8.08	10.0	-19.2	50.0
1,1,2-Trichloroethane	Ave	0.2051	0.2088		10.2	10.0	1.8	50.0
1,3-Dichloropropane	Ave	1.459	1.314		9.01	10.0	-9.9	50.0
Tetrachloroethene	Ave	1.759	1.876		10.7	10.0	6.7	50.0
2-Hexanone	Ave	0.3156	0.2777		35.2	40.0	-12.0	50.0
Chlorodibromomethane	Ave	1.802	1.750		9.71	10.0	-2.9	50.0
1,2-Dibromoethane	Ave	1.245	1.164		9.35	10.0	-6.5	50.0
1-Chlorohexane	Ave	2.245	2.125		9.47	10.0	-5.3	50.0
Chlorobenzene	Ave	3.316	3.525	0.3000	10.6	10.0	6.3	50.0
1,1,1,2-Tetrachloroethane	Ave	1.635	1.651		10.1	10.0	1.0	50.0
Ethylbenzene	Ave	1.587	1.621		10.2	10.0	2.2	50.0
m-Xylene & p-Xylene	Ave	2.132	2.156		10.1	10.0	1.1	50.0
o-Xylene	Ave	1.876	1.875		9.99	10.0	-0.0	50.0
Styrene	Ave	3.068	3.137		10.2	10.0	2.2	50.0
Bromoform	Ave	1.039	1.001	0.1000	9.63	10.0	-3.7	50.0
Isopropylbenzene	Ave	3.719	3.708		9.97	10.0	-0.3	50.0
Cyclohexanone	Ave	0.0134	0.0118		352	400	-11.9	50.0
Bromobenzene	Ave	0.9443	0.9734		10.3	10.0	3.1	50.0
1,1,2,2-Tetrachloroethane	Ave	0.6936	0.6504	0.3000	9.38	10.0	-6.2	50.0
1,2,3-Trichloropropane	Ave	0.1909	0.1554		8.14	10.0	-18.6	50.0
trans-1,4-Dichloro-2-butene	Ave	0.1329	0.1172		8.81	10.0	-11.9	50.0
N-Propylbenzene	Ave	0.9554	1.021		10.7	10.0	6.9	50.0
2-Chlorotoluene	Ave	0.7943	0.8318		10.5	10.0	4.7	50.0
4-Chlorotoluene	Ave	0.9219	0.9318		10.1	10.0	1.1	50.0
1,3,5-Trimethylbenzene	Ave	2.812	2.809		9.99	10.0	-0.1	50.0
tert-Butylbenzene	Ave	3.111	3.314		10.7	10.0	6.5	50.0
1,2,4-Trimethylbenzene	Ave	2.746	2.721		9.91	10.0	-0.9	50.0
sec-Butylbenzene	Ave	0.8147	0.8509		10.4	10.0	4.4	50.0
1,3-Dichlorobenzene	Ave	1.591	1.661		10.4	10.0	4.4	50.0
p-Isopropyltoluene	Ave	3.513	3.816		10.9	10.0	8.6	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Lab Sample ID: CCVC 280-281058/17 Calibration Date: 06/09/2015 23:13
 Instrument ID: VMS_Z Calib Start Date: 06/01/2015 19:51
 GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 06/02/2015 01:06
 Lab File ID: Z8599.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dichlorobenzene	Ave	1.896	1.945		10.3	10.0	2.6	50.0
1,2-Dichlorobenzene	Ave	1.394	1.410		10.1	10.0	1.1	50.0
n-Butylbenzene	Ave	3.121	3.133		10.0	10.0	0.4	50.0
1,2-Dibromo-3-Chloropropane	Ave	0.1353	0.1137		8.40	10.0	-16.0	50.0
1,2,4-Trichlorobenzene	Ave	1.031	1.028		9.97	10.0	-0.3	50.0
Hexachlorobutadiene	Ave	0.9540	0.9744		10.2	10.0	2.1	50.0
Naphthalene	Ave	0.9630	0.9351		9.71	10.0	-2.9	50.0
1,2,3-Trichlorobenzene	Ave	0.7901	0.7774		9.84	10.0	-1.6	50.0
Dibromofluoromethane (Surr)	Ave	0.5973	0.6280		11.0	10.5	5.1	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2270	0.2237		10.3	10.5	-1.5	50.0
Toluene-d8 (Surr)	Ave	4.060	4.292		11.1	10.5	5.7	50.0
4-Bromofluorobenzene (Surr)	Ave	1.417	1.415		10.5	10.5	-0.1	50.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8599.D
 Lims ID: ccvc
 Client ID:
 Sample Type: CCVC
 Inject. Date: 09-Jun-2015 23:13:30 ALS Bottle#: 15 Worklist Smp#: 17
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ccvc
 Operator ID: bergerb Instrument ID: VMS_Z
 Sublist: chrom-AQ_VMSZ_8260*sub71
 Method: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\AQ_VMSZ_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 10-Jun-2015 15:45:19 Calib Date: 02-Jun-2015 01:06:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8233.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK012

First Level Reviewer: bergerb Date: 10-Jun-2015 15:45:19

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.479	3.479	0.000	60	136631	250.0	250.0	
* 2 Fluorobenzene	96	6.384	6.384	0.000	98	795408	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.013	11.013	0.000	85	199142	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.120	15.120	0.000	95	324891	12.5	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.462	5.462	0.000	95	419598	10.5	11.0	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	5.897	5.897	0.000	94	149432	10.5	10.3	
\$ 10 Toluene-d8 (Surr)	98	8.699	8.699	0.000	92	717928	10.5	11.1	
\$ 11 4-Bromofluorobenzene (Surr	95	13.049	13.049	0.000	91	386291	10.5	10.5	
27 Dichlorodifluoromethane	85	1.913	1.913	0.000	99	354579	10.0	11.1	
30 Chloromethane	50	1.982	1.982	0.000	99	210824	10.0	9.86	M
31 Butadiene	54	2.087	2.087	0.000	82	145896	NC	NC	
32 Vinyl chloride	62	2.104	2.104	0.000	98	227751	10.0	10.4	
35 Bromomethane	94	2.330	2.330	0.000	89	228815	10.0	10.7	
36 Chloroethane	64	2.382	2.382	0.000	98	151478	10.0	11.1	
37 Dichlorofluoromethane	67	2.539	2.539	0.000	97	556580	10.0	10.8	
38 Trichlorofluoromethane	101	2.591	2.591	0.000	99	475798	10.0	10.0	
40 Ethyl ether	59	2.800	2.800	0.000	90	95485	10.0	9.28	
44 Acrolein	56	2.904	2.904	0.000	99	49009	100.0	106.7	
45 1,1-Dichloroethene	96	3.026	3.026	0.000	99	249075	10.0	11.6	
48 Acetone	43	3.026	3.026	0.000	28	41228	40.0	35.3	
46 1,1,2-Trichloro-1,2,2-trif	151	3.078	3.078	0.000	96	358406	10.0	10.9	
49 Iodomethane	142	3.183	3.183	0.000	99	621841	10.0	10.7	
50 Carbon disulfide	76	3.270	3.270	0.000	98	886839	10.0	10.6	
52 3-Chloro-1-propene	41	3.339	3.339	0.000	86	313082	10.0	9.17	
51 Methyl acetate	43	3.339	3.339	0.000	70	213074	50.0	43.1	
54 Methylene Chloride	84	3.461	3.461	0.000	90	200126	10.0	10.4	
55 2-Methyl-2-propanol	59	3.566	3.566	0.000	96	47286	100.0	122.7	
58 Acrylonitrile	53	3.670	3.670	0.000	98	147643	100.0	96.2	
57 trans-1,2-Dichloroethene	96	3.757	3.757	0.000	99	253117	10.0	10.7	
56 Methyl tert-butyl ether	73	3.774	3.774	0.000	94	315872	10.0	9.96	
59 Hexane	57	4.053	4.053	0.000	90	297021	10.0	8.40	M

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
62 1,1-Dichloroethane	63	4.192	4.192	0.000	95	417188	10.0	9.45	M
61 Vinyl acetate	43	4.209	4.209	0.000	96	368210	20.0	16.2	
67 2-Butanone (MEK)	43	4.853	4.853	0.000	40	89765	40.0	36.5	
65 cis-1,2-Dichloroethene	96	4.871	4.871	0.000	83	247723	10.0	10.7	
66 2,2-Dichloropropane	77	4.888	4.888	0.000	86	402083	10.0	10.2	
70 sec-Butyl Alcohol	45	5.097	5.097	0.000	95	127462	300.0	275.9	
71 Chlorobromomethane	128	5.166	5.166	0.000	88	133207	10.0	11.1	
72 Tetrahydrofuran	42	5.253	5.253	0.000	36	26456	20.0	17.0	
74 Chloroform	83	5.253	5.253	0.000	94	416553	10.0	10.1	
75 1,1,1-Trichloroethane	97	5.549	5.549	0.000	99	405061	10.0	10.4	
76 Cyclohexane	56	5.636	5.636	0.000	89	376815	10.0	10.2	
78 1,1-Dichloropropene	75	5.741	5.741	0.000	99	345816	10.0	9.87	
77 Carbon tetrachloride	117	5.775	5.775	0.000	97	423073	10.0	10.1	
80 Isobutyl alcohol	41	5.862	5.862	0.000	94	35448	250.0	214.1	
82 1,2-Dichloroethane	62	6.002	6.002	0.000	54	159174	10.0	9.19	
81 Benzene	78	6.002	6.002	0.000	95	652535	10.0	10.7	
84 n-Heptane	43	6.402	6.402	0.000	90	372895	10.0	9.69	
85 Trichloroethene	95	6.907	6.907	0.000	95	298616	10.0	10.5	
89 2-Pentanone	43	7.133	7.133	0.000	99	197159	40.0	34.6	
90 1,2-Dichloropropane	63	7.202	7.202	0.000	96	229315	10.0	9.21	
87 Methylcyclohexane	55	7.220	7.220	0.000	91	326935	10.0	10.2	
92 Dibromomethane	93	7.376	7.376	0.000	93	132440	10.0	9.68	
93 1,4-Dioxane	88	7.429	7.429	0.000	5	7250	NC	NC	
94 Dichlorobromomethane	83	7.603	7.603	0.000	100	355349	10.0	10.2	
96 2-Chloroethyl vinyl ether	63	8.055	8.055	0.000	92	72642	10.0	8.63	
97 cis-1,3-Dichloropropene	75	8.264	8.264	0.000	98	298692	10.0	9.21	
98 4-Methyl-2-pentanone (MIBK)	43	8.525	8.525	0.000	95	283281	40.0	37.5	
99 Toluene	91	8.803	8.803	0.000	99	696495	10.0	10.0	
100 trans-1,3-Dichloropropene	75	9.116	9.116	0.000	90	202931	10.0	9.49	
101 Ethyl methacrylate	69	9.325	9.325	0.000	84	154580	10.0	8.08	
102 1,1,2-Trichloroethane	97	9.412	9.412	0.000	90	132875	10.0	10.2	
104 1,3-Dichloropropane	76	9.673	9.673	0.000	88	209338	10.0	9.01	
103 Tetrachloroethene	164	9.708	9.708	0.000	97	298816	10.0	10.7	
105 2-Hexanone	43	9.865	9.865	0.000	94	176956	40.0	35.2	
107 Chlorodibromomethane	129	10.056	10.056	0.000	90	278828	10.0	9.71	
109 Ethylene Dibromide	107	10.230	10.230	0.000	99	185515	10.0	9.35	
111 Chlorobenzene	112	11.065	11.065	0.000	94	561598	10.0	10.6	
110 1-Chlorohexane	91	11.065	11.065	0.000	73	338605	10.0	9.47	
113 1,1,1,2-Tetrachloroethane	131	11.222	11.222	0.000	96	263012	10.0	10.1	
112 Ethylbenzene	106	11.274	11.274	0.000	98	258295	10.0	10.2	
114 m-Xylene & p-Xylene	106	11.483	11.483	0.000	97	343487	10.0	10.1	
115 o-Xylene	106	12.162	12.162	0.000	96	298655	10.0	10.0	
116 Styrene	104	12.179	12.179	0.000	94	499687	10.0	10.2	
117 Bromoform	173	12.457	12.457	0.000	98	159541	10.0	9.63	
118 Isopropylbenzene	105	12.823	12.823	0.000	95	963775	10.0	9.97	
119 Cyclohexanone	55	12.945	12.945	0.000	89	75305	400.0	352.3	
121 Bromobenzene	156	13.293	13.293	0.000	94	252986	10.0	10.3	
122 1,1,2,2-Tetrachloroethane	83	13.310	13.310	0.000	94	169039	10.0	9.38	
124 1,2,3-Trichloropropane	110	13.362	13.362	0.000	80	40384	10.0	8.14	
125 trans-1,4-Dichloro-2-buten	53	13.414	13.414	0.000	78	30458	10.0	8.81	
123 N-Propylbenzene	120	13.536	13.536	0.000	98	265362	10.0	10.7	
126 2-Chlorotoluene	126	13.658	13.658	0.000	88	216199	10.0	10.5	a

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
128 4-Chlorotoluene	126	13.849	13.849	0.000	97	242194	10.0	10.1	
127 1,3,5-Trimethylbenzene	105	13.867	13.867	0.000	95	730030	10.0	9.99	
129 tert-Butylbenzene	119	14.441	14.441	0.000	93	861282	10.0	10.7	
130 1,2,4-Trimethylbenzene	105	14.528	14.528	0.000	95	707344	10.0	9.91	
131 sec-Butylbenzene	134	14.841	14.841	0.000	93	221171	10.0	10.4	
132 1,3-Dichlorobenzene	146	14.998	14.998	0.000	96	431838	10.0	10.4	
133 4-Isopropyltoluene	119	15.120	15.120	0.000	97	991917	10.0	10.9	
134 1,4-Dichlorobenzene	146	15.154	15.154	0.000	95	505573	10.0	10.3	
138 1,2-Dichlorobenzene	146	15.798	15.798	0.000	97	366442	10.0	10.1	
137 n-Butylbenzene	91	15.850	15.850	0.000	97	814176	10.0	10.0	
139 1,2-Dibromo-3-Chloropropan	157	16.929	16.929	0.000	90	29557	10.0	8.40	
141 1,2,4-Trichlorobenzene	180	17.869	17.869	0.000	94	267074	10.0	9.97	
142 Hexachlorobutadiene	225	18.060	18.060	0.000	98	253261	10.0	10.2	
143 Naphthalene	128	18.095	18.095	0.000	97	243050	10.0	9.71	
144 1,2,3-Trichlorobenzene	180	18.339	18.339	0.000	96	202066	10.0	9.84	
S 145 1,2-Dichloroethene, Total	1				0		20.0	21.4	
S 146 Xylenes, Total	106				0		20.0	20.1	
S 147 1,2-Dichloroethene, Total	96				0		20.0	21.4	
S 148 1,3-Dichloropropene, Total	1				0		20.0	18.7	
S 149 Trihalomethanes, Total	1				0		40.0	39.6	
S 150 Xylenes, Total (URS)	1				0		20.0	20.1	
S 151 Total BTEX	1				0			51.0	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MV-Main A_00023	Amount Added: 5.00	Units: uL	
MV-Gas/Ket A_00034	Amount Added: 5.00	Units: uL	
MV-2cleve+AVA_00010	Amount Added: 5.00	Units: uL	
MV-567649-D_00001	Amount Added: 1.00	Units: uL	Run Reagent
MV-ARCH SS A_00047	Amount Added: 0.84	Units: uL	Run Reagent

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8599.D

Injection Date: 09-Jun-2015 23:13:30

Instrument ID: VMS_Z

Operator ID: bergerb

Lims ID: ccvc

Worklist Smp#: 17

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

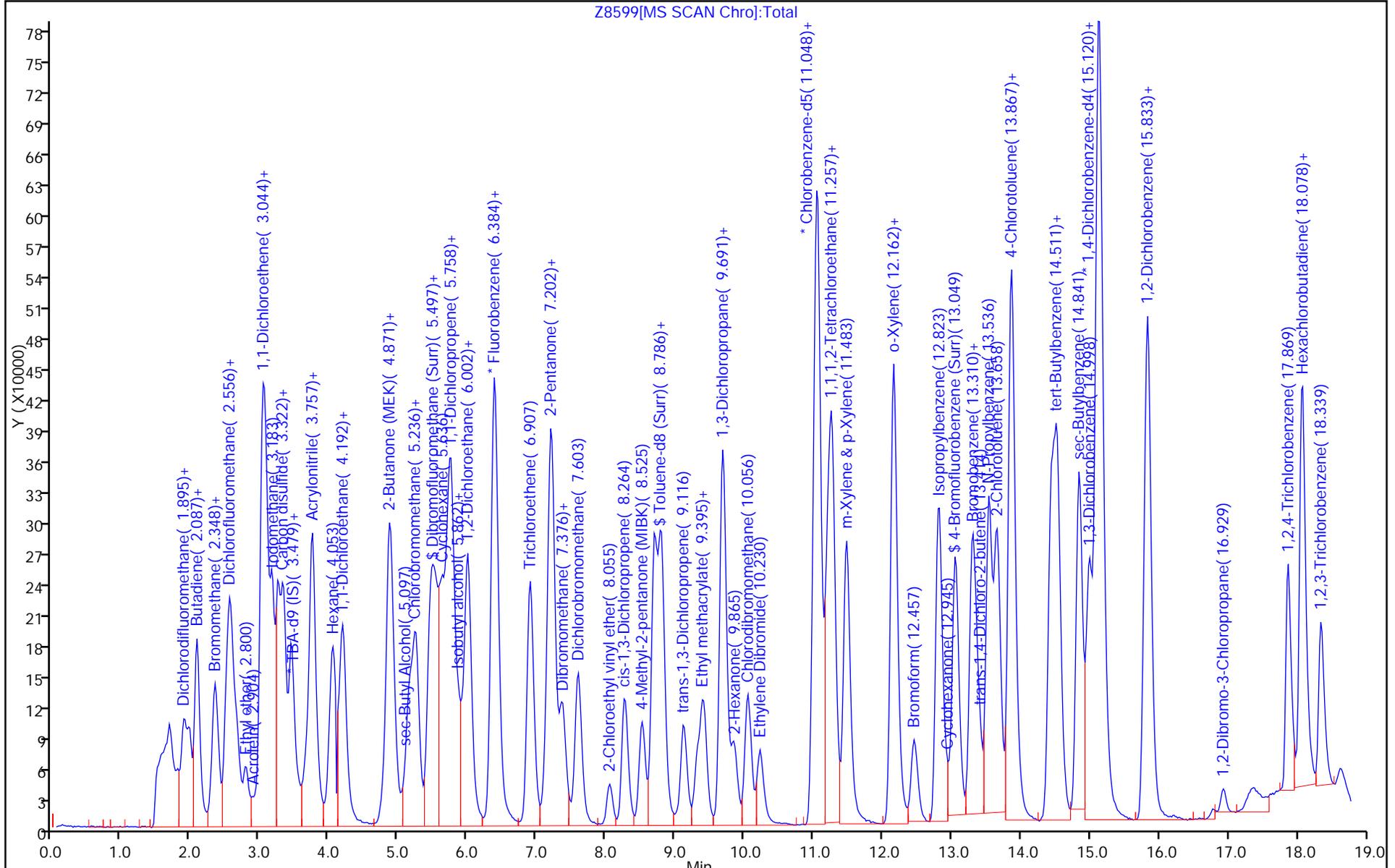
ALS Bottle#: 15

Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



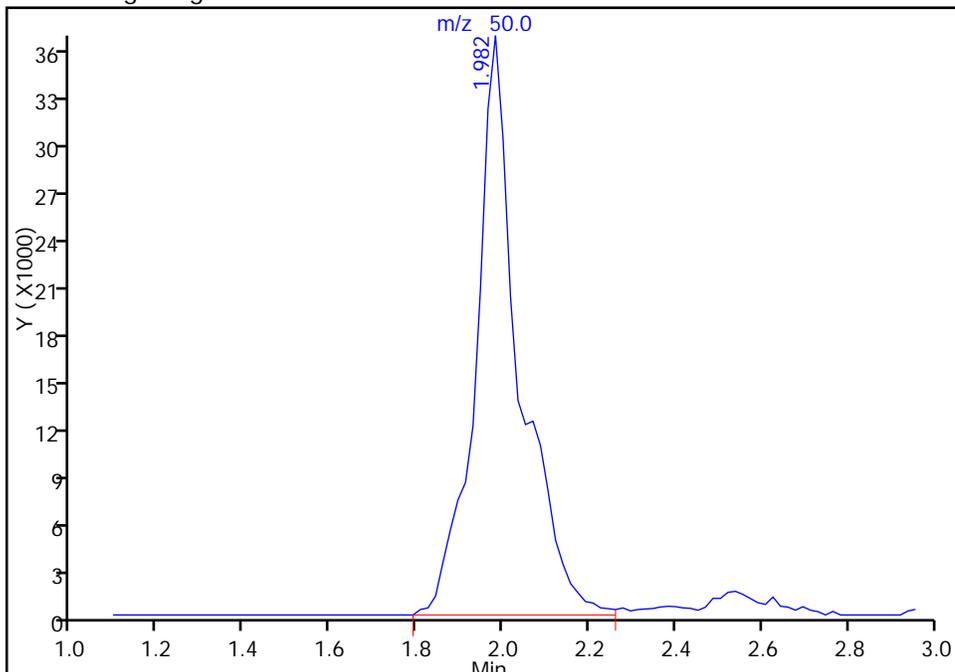
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8599.D
Injection Date: 09-Jun-2015 23:13:30 Instrument ID: VMS_Z
Lims ID: ccvc
Client ID:
Operator ID: bergerb ALS Bottle#: 15 Worklist Smp#: 17
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

30 Chloromethane, CAS: 74-87-3

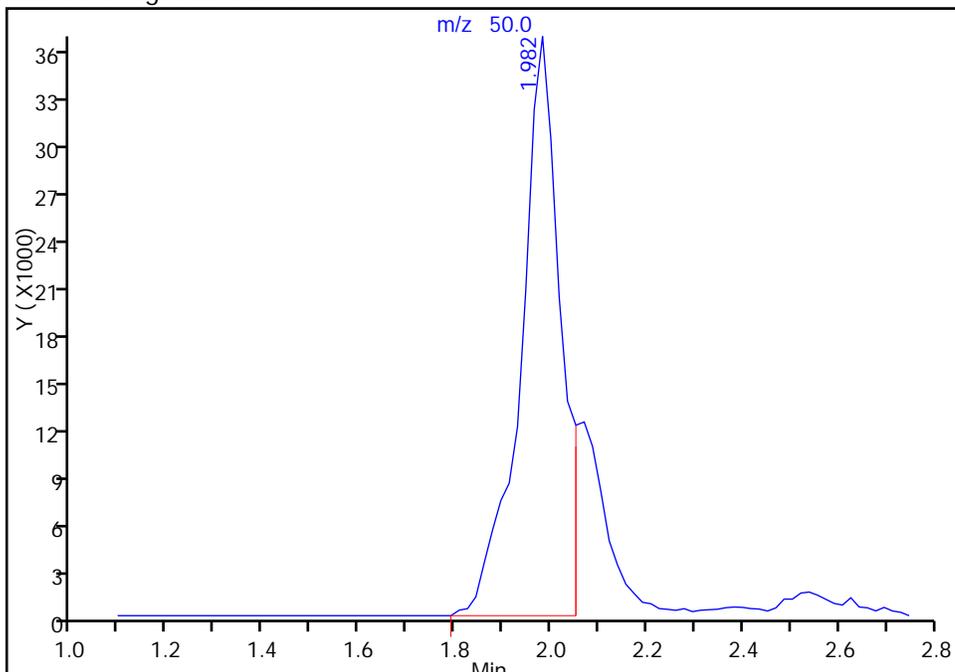
RT: 1.98
Area: 257367
Amount: 11.966545
Amount Units: ug/l

Processing Integration Results



RT: 1.98
Area: 210824
Amount: 9.858401
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 10-Jun-2015 00:50:49
Audit Action: Split an Integrated Peak
Audit Reason: Shouldering

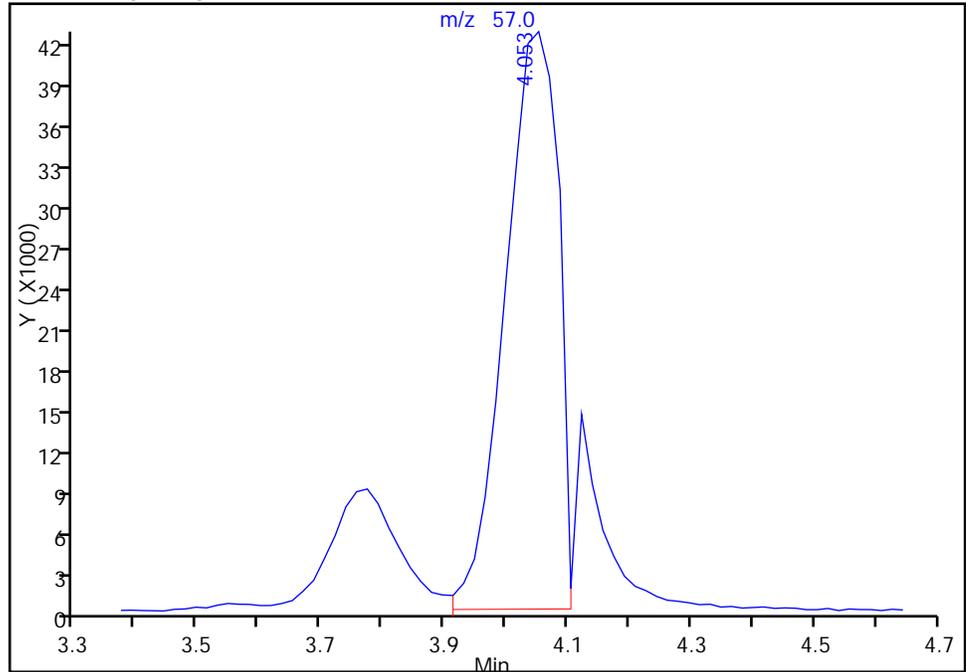
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8599.D
Injection Date: 09-Jun-2015 23:13:30 Instrument ID: VMS_Z
Lims ID: ccvc
Client ID:
Operator ID: bergerb ALS Bottle#: 15 Worklist Smp#: 17
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

59 Hexane, CAS: 110-54-3

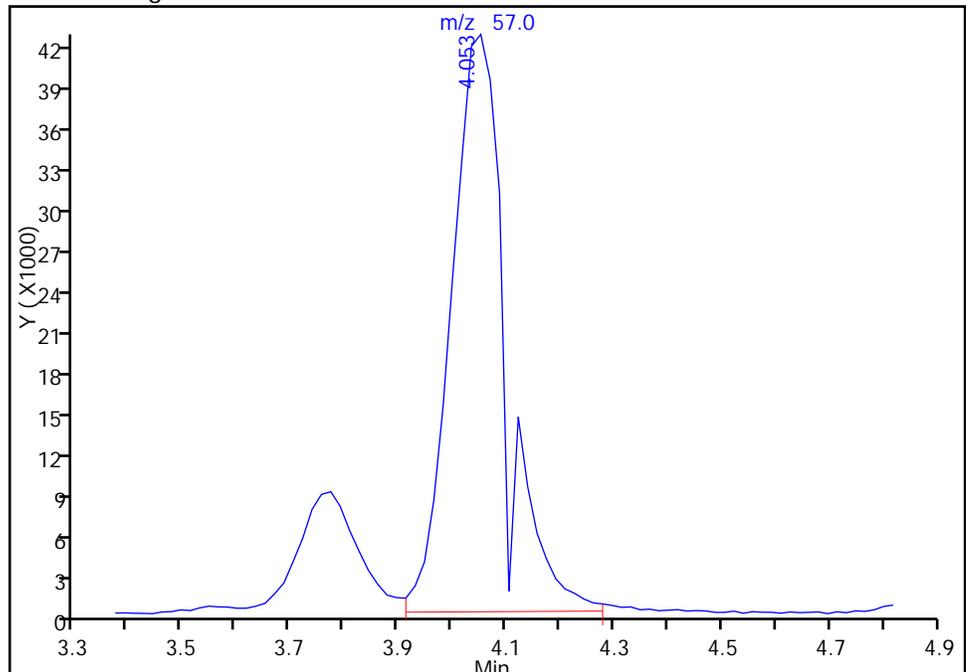
RT: 4.05
Area: 254698
Amount: 7.201902
Amount Units: ug/l

Processing Integration Results



RT: 4.05
Area: 297021
Amount: 8.398637
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 10-Jun-2015 00:50:49
Audit Action: Split an Integrated Peak
Audit Reason: Split Peak

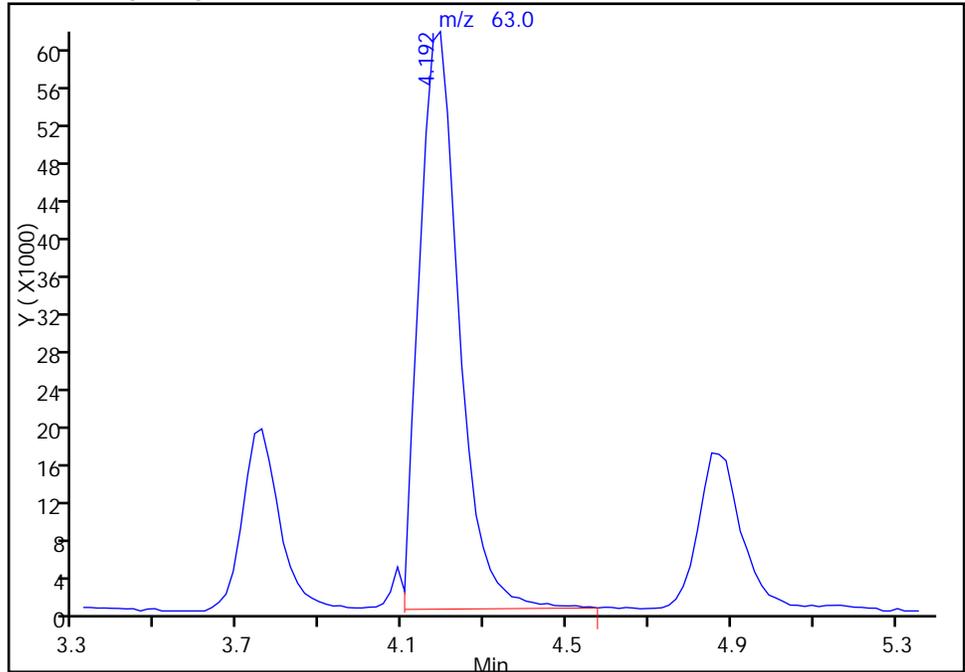
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8599.D
Injection Date: 09-Jun-2015 23:13:30 Instrument ID: VMS_Z
Lims ID: ccvc
Client ID:
Operator ID: bergerb ALS Bottle#: 15 Worklist Smp#: 17
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

62 1,1-Dichloroethane, CAS: 75-34-3

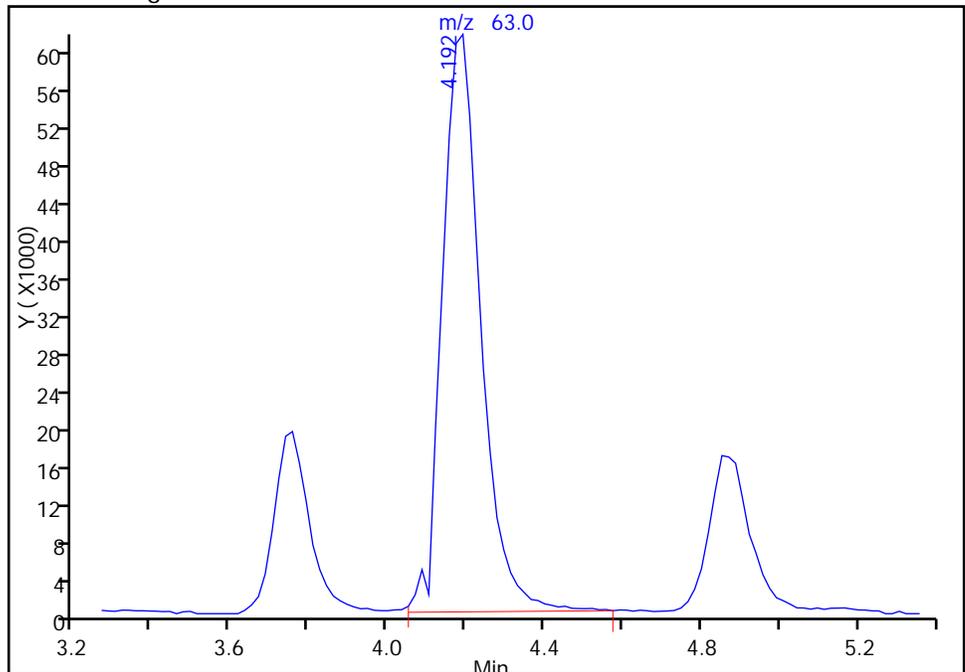
RT: 4.19
Area: 409932
Amount: 9.282702
Amount Units: ug/l

Processing Integration Results



RT: 4.19
Area: 417188
Amount: 9.447010
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 10-Jun-2015 00:50:49
Audit Action: Split an Integrated Peak
Audit Reason: Split Peak

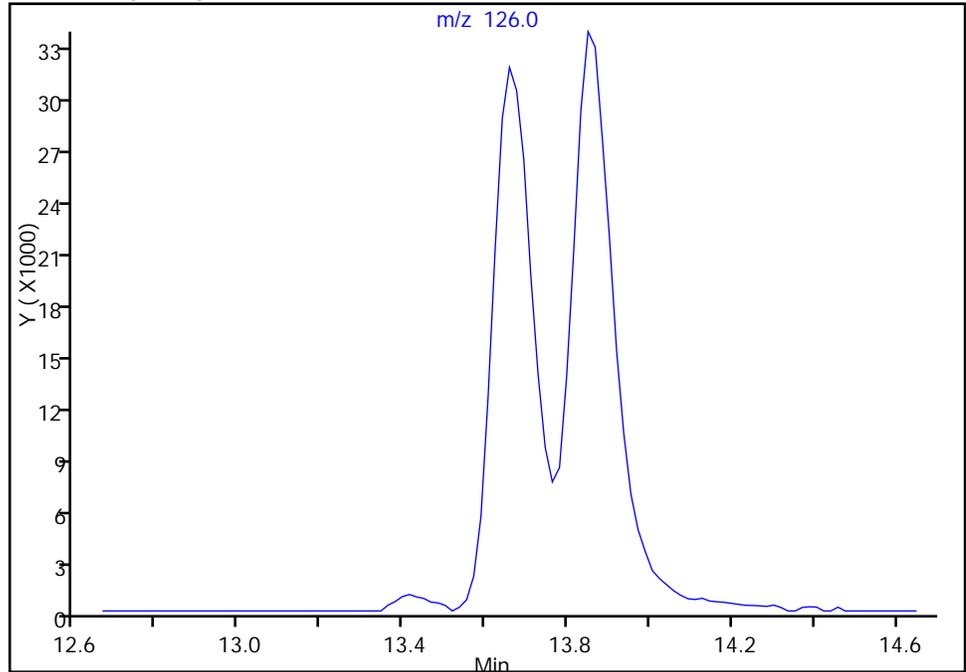
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8599.D
Injection Date: 09-Jun-2015 23:13:30 Instrument ID: VMS_Z
Lims ID: ccvc
Client ID:
Operator ID: bergerb ALS Bottle#: 15 Worklist Smp#: 17
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

126 2-Chlorotoluene, CAS: 95-49-8

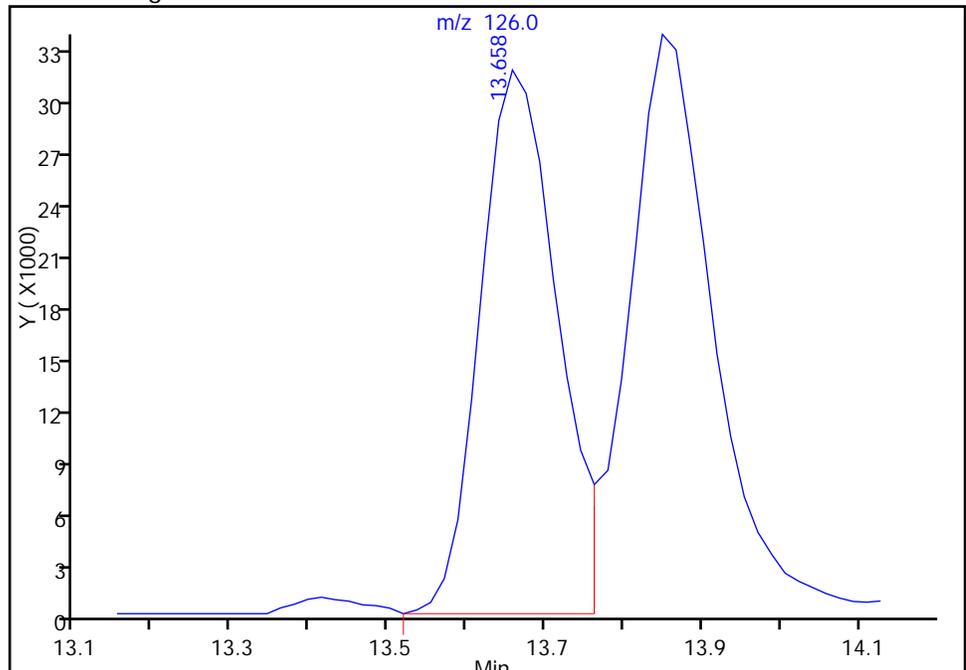
Not Detected
Expected RT: 13.66

Processing Integration Results



RT: 13.66
Area: 216199
Amount: 10.472500
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 10-Jun-2015 00:50:49
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2946.D
 Lims ID: BFB
 Client ID:
 Sample Type: BFB
 Inject. Date: 27-May-2015 23:12:30 ALS Bottle#: 100 Worklist Smp#: 1
 Injection Vol: 1.0 uL Dil. Factor: 1.0000
 Sample Info: bfb
 Operator ID: BERGERB Instrument ID: VMS_H
 Method: \\Denchrom\ChromData\VMS_H\20150528-35452.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 28-May-2015 07:24:25 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK018

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
\$ 7 BFB	95	2.473	2.473	0.000	80	242466	NR	NR	7

QC Flag Legend

Processing Flags
 NR - Missing Quant Standard
 7 - Failed Limit of Detection

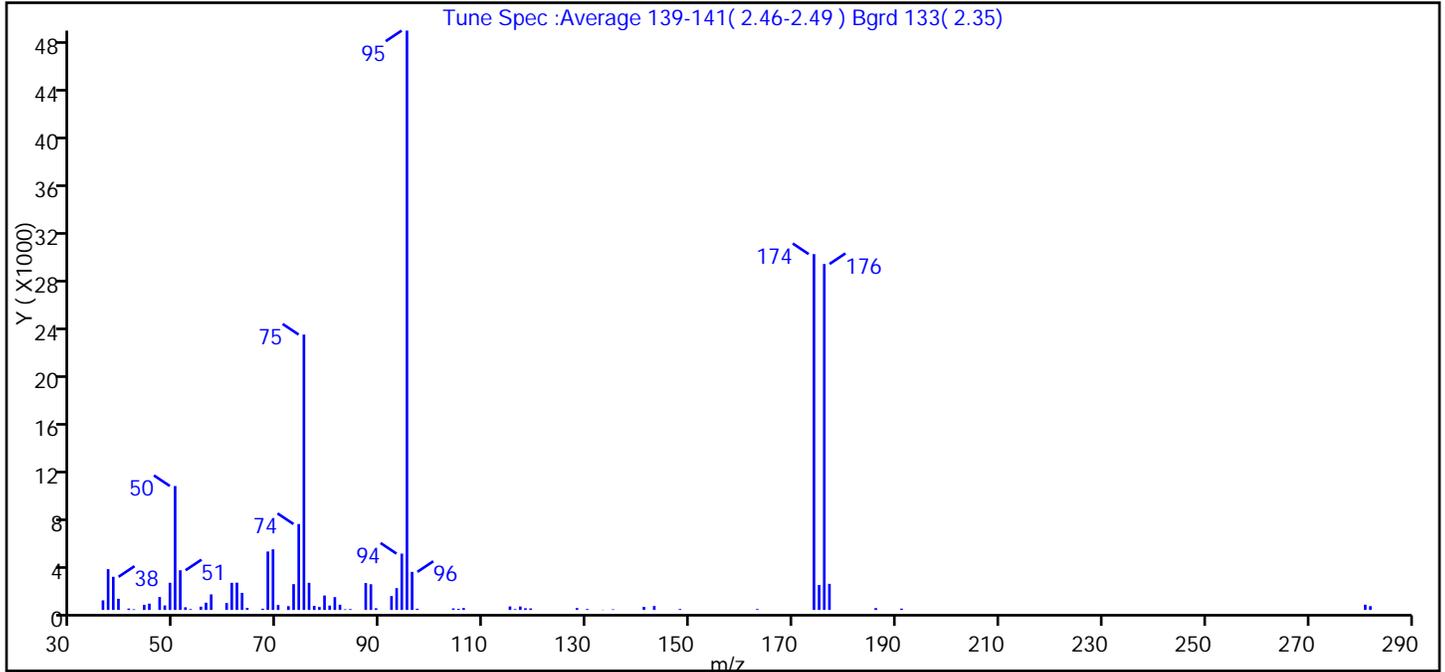
Reagents:

MV-BFB_00018 Amount Added: 1.00 Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2946.D
 Injection Date: 27-May-2015 23:12:30 Instrument ID: VMS_H
 Lims ID: BFB
 Client ID:
 Operator ID: BERGERB ALS Bottle#: 100 Worklist Smp#: 1
 Injection Vol: 1.0 uL Dil. Factor: 1.0000
 Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
 Tune Method: BFB Method 8260

\$ 7 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	21.4
75	30 to 60% of m/z 95	47.5
96	5 to 9% of m/z 95	6.6
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	61.4
175	5 to 9% of m/z 174	4.3 (7.0)
176	Greater than 95% but less than 101% of m/z 174	59.7 (97.2)
177	5 to 9% of m/z 176	4.5 (7.5)

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2946.D\AQ_VMSH_8260.rslt\spectra.d
 Injection Date: 27-May-2015 23:12:30
 Spectrum: Tune Spec :Average 139-141(2.46-2.49) Bgrd 133(2.35)
 Base Peak: 95.00
 Minimum % Base Peak: 0
 Number of Points: 74

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	809	61.00	2285	83.00	52	128.00	159
37.00	3436	62.00	2299	84.00	69	130.00	74
38.00	2792	63.00	1438	87.00	2266	133.00	20
39.00	939	64.00	173	88.00	2165	135.00	48
41.00	117	67.00	104	89.00	142	141.00	257
42.00	54	68.00	4921	92.00	1170	143.00	334
44.00	430	69.00	5103	93.00	1837	148.00	76
45.00	530	70.00	417	94.00	4743	163.00	72
47.00	1090	72.00	320	95.00	48776	170.00	1
48.00	381	73.00	2173	96.00	3207	174.00	29960
49.00	2291	74.00	7234	97.00	103	175.00	2097
50.00	10434	75.00	23184	104.00	132	176.00	29128
51.00	3342	76.00	2287	105.00	89	177.00	2198
52.00	227	77.00	342	106.00	160	186.00	156
53.00	70	78.00	250	115.00	296	191.00	111
55.00	277	79.00	1215	116.00	67	281.00	446
56.00	610	80.00	368	117.00	292	282.00	322
57.00	1309	81.00	1081	118.00	144		
60.00	584	82.00	442	119.00	128		

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150611-35960.b\H3589.D
 Lims ID: BFB
 Client ID:
 Sample Type: BFB
 Inject. Date: 11-Jun-2015 18:47:30 ALS Bottle#: 100 Worklist Smp#: 1
 Injection Vol: 1.0 uL Dil. Factor: 1.0000
 Sample Info: BFB
 Operator ID: bergerb Instrument ID: VMS_H
 Method: \\Denchrom\ChromData\VMS_H\20150611-35960.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 12-Jun-2015 11:42:34 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK002

First Level Reviewer: bergerb Date: 12-Jun-2015 11:42:34

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
\$ 7 BFB	95	2.473	2.473	0.000	79	230268	NR	NR	7

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

7 - Failed Limit of Detection

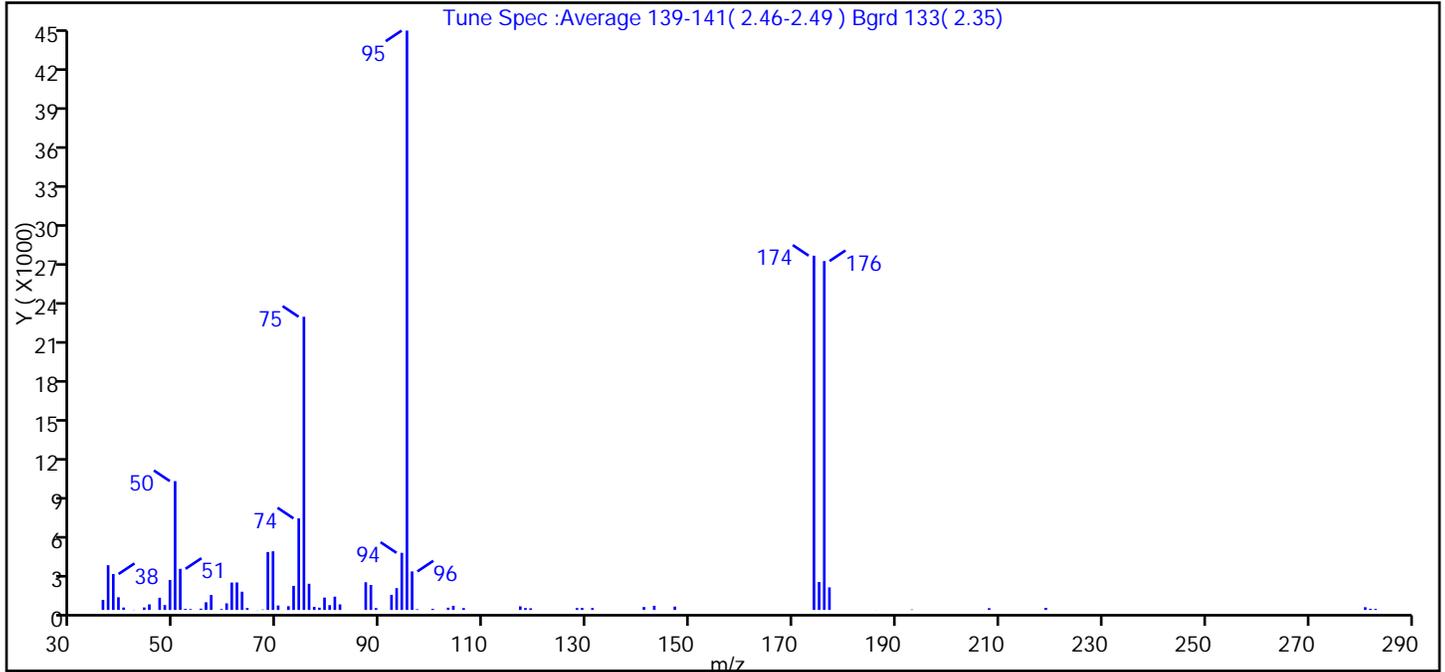
Reagents:

MV-BFB_00018 Amount Added: 1.00 Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150611-35960.b\H3589.D
 Injection Date: 11-Jun-2015 18:47:30 Instrument ID: VMS_H
 Lims ID: BFB
 Client ID:
 Operator ID: bergerb ALS Bottle#: 100 Worklist Smp#: 1
 Injection Vol: 1.0 uL Dil. Factor: 1.0000
 Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
 Tune Method: BFB Method 8260

\$ 7 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	22.2
75	30 to 60% of m/z 95	50.6
96	5 to 9% of m/z 95	6.6
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	61.2
175	5 to 9% of m/z 174	4.8 (7.9)
176	Greater than 95% but less than 101% of m/z 174	60.2 (98.5)
177	5 to 9% of m/z 176	3.9 (6.5)

Data File: \\Denchrom\ChromData\VMS_H\20150611-35960.b\H3589.D\AQ_VMSH_8260.rslt\spectra.d
Injection Date: 11-Jun-2015 18:47:30
Spectrum: Tune Spec :Average 139-141(2.46-2.49) Bgrd 133(2.35)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 73

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	778	60.00	512	81.00	1027	129.00	154
37.00	3457	61.00	2117	82.00	432	131.00	150
38.00	2778	62.00	2125	87.00	2141	141.00	227
39.00	982	63.00	1410	88.00	1932	143.00	322
40.00	188	64.00	148	89.00	144	147.00	261
42.00	16	66.00	10	92.00	1168	174.00	27376
44.00	194	67.00	34	93.00	1685	175.00	2156
45.00	430	68.00	4476	94.00	4415	176.00	26960
47.00	941	69.00	4533	95.00	44768	177.00	1746
48.00	379	70.00	344	96.00	2977	186.00	5
49.00	2318	72.00	290	97.00	52	193.00	33
50.00	9957	73.00	1861	100.00	86	208.00	137
51.00	3179	74.00	7078	103.00	176	219.00	162
52.00	83	75.00	22656	104.00	321	281.00	212
53.00	64	76.00	2023	106.00	146	282.00	88
55.00	101	77.00	240	117.00	279	283.00	78
56.00	594	78.00	177	118.00	149		
57.00	1157	79.00	956	119.00	129		
59.00	68	80.00	372	128.00	146		

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8218.D
 Lims ID: BFB
 Client ID:
 Sample Type: BFB
 Inject. Date: 01-Jun-2015 19:09:30 ALS Bottle#: 100 Worklist Smp#: 1
 Injection Vol: 1.0 uL Dil. Factor: 1.0000
 Sample Info: bfb
 Operator ID: bergerb Instrument ID: VMS_Z
 Method: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\AQ_VMSZ_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 02-Jun-2015 02:41:45 Calib Date: 02-Jun-2015 01:06:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8233.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK021

First Level Reviewer: bergerb Date: 02-Jun-2015 02:41:45

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
\$ 7 BFB	95	2.524	2.524	0.000	87	107998	NR	NR	7

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

7 - Failed Limit of Detection

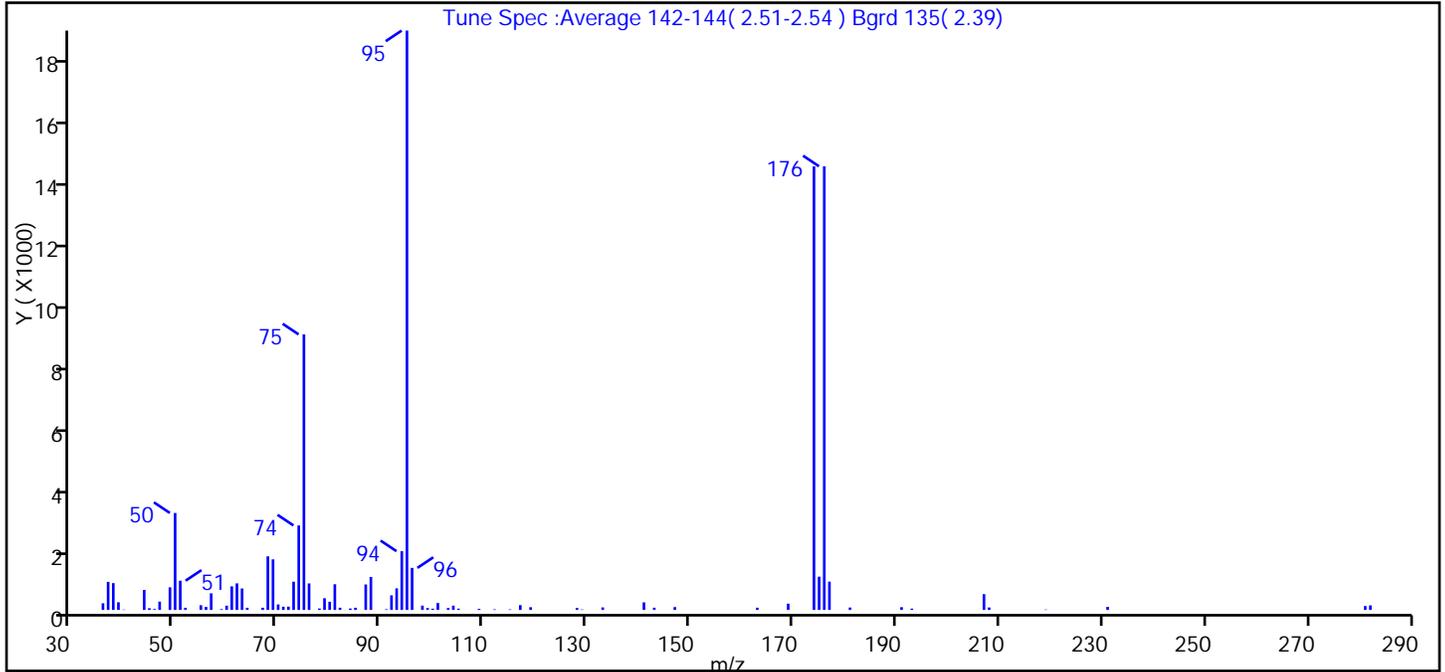
Reagents:

MV-BFB_00018 Amount Added: 1.00 Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8218.D
 Injection Date: 01-Jun-2015 19:09:30 Instrument ID: VMS_Z
 Lims ID: BFB
 Client ID:
 Operator ID: bergerb ALS Bottle#: 100 Worklist Smp#: 1
 Injection Vol: 1.0 uL Dil. Factor: 1.0000
 Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
 Tune Method: BFB Method 8260

\$ 7 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	16.7
75	30 to 60% of m/z 95	47.6
96	5 to 9% of m/z 95	7.3
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	76.6
175	5 to 9% of m/z 174	5.7 (7.5)
176	Greater than 95% but less than 101% of m/z 174	76.6 (100.0)
177	5 to 9% of m/z 176	4.9 (6.4)

Data File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8218.D\AQ_VMSZ_8260.rslt\spectra.d
Injection Date: 01-Jun-2015 19:09:30
Spectrum: Tune Spec :Average 142-144(2.51-2.54) Bgrd 135(2.39)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 82

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	213	64.00	70	88.00	1054	133.00	81
37.00	896	67.00	71	91.00	21	141.00	242
38.00	857	68.00	1712	92.00	466	143.00	72
39.00	245	69.00	1616	93.00	690	147.00	92
40.00	12	70.00	177	94.00	1877	163.00	72
44.00	640	71.00	104	95.00	18504	169.00	201
45.00	55	72.00	106	96.00	1343	174.00	14166
46.00	29	73.00	902	98.00	138	175.00	1063
47.00	267	74.00	2699	99.00	61	176.00	14170
49.00	722	75.00	8801	100.00	40	177.00	904
50.00	3098	76.00	847	101.00	222	181.00	78
51.00	934	77.00	1	103.00	63	191.00	89
52.00	70	78.00	46	104.00	137	193.00	42
55.00	151	79.00	374	105.00	42	207.00	505
56.00	96	80.00	261	109.00	36	208.00	79
57.00	531	81.00	821	112.00	19	219.00	13
59.00	25	82.00	72	115.00	18	231.00	98
60.00	136	83.00	3	117.00	154	281.00	124
61.00	753	84.00	46	119.00	88	282.00	146
62.00	849	85.00	71	128.00	63		
63.00	686	87.00	814	129.00	14		

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8584.D
 Lims ID: BFB
 Client ID:
 Sample Type: BFB
 Inject. Date: 09-Jun-2015 17:29:30 ALS Bottle#: 100 Worklist Smp#: 1
 Injection Vol: 1.0 uL Dil. Factor: 1.0000
 Sample Info: bfb
 Operator ID: bergerb Instrument ID: VMS_Z
 Method: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\AQ_VMSZ_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 10-Jun-2015 15:48:06 Calib Date: 02-Jun-2015 01:06:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8233.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK012

First Level Reviewer: bergerb Date: 10-Jun-2015 15:48:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
\$ 7 BFB	95	2.544	2.544	0.000	88	96670	NR	NR	7

QC Flag Legend

Processing Flags
 NR - Missing Quant Standard
 7 - Failed Limit of Detection

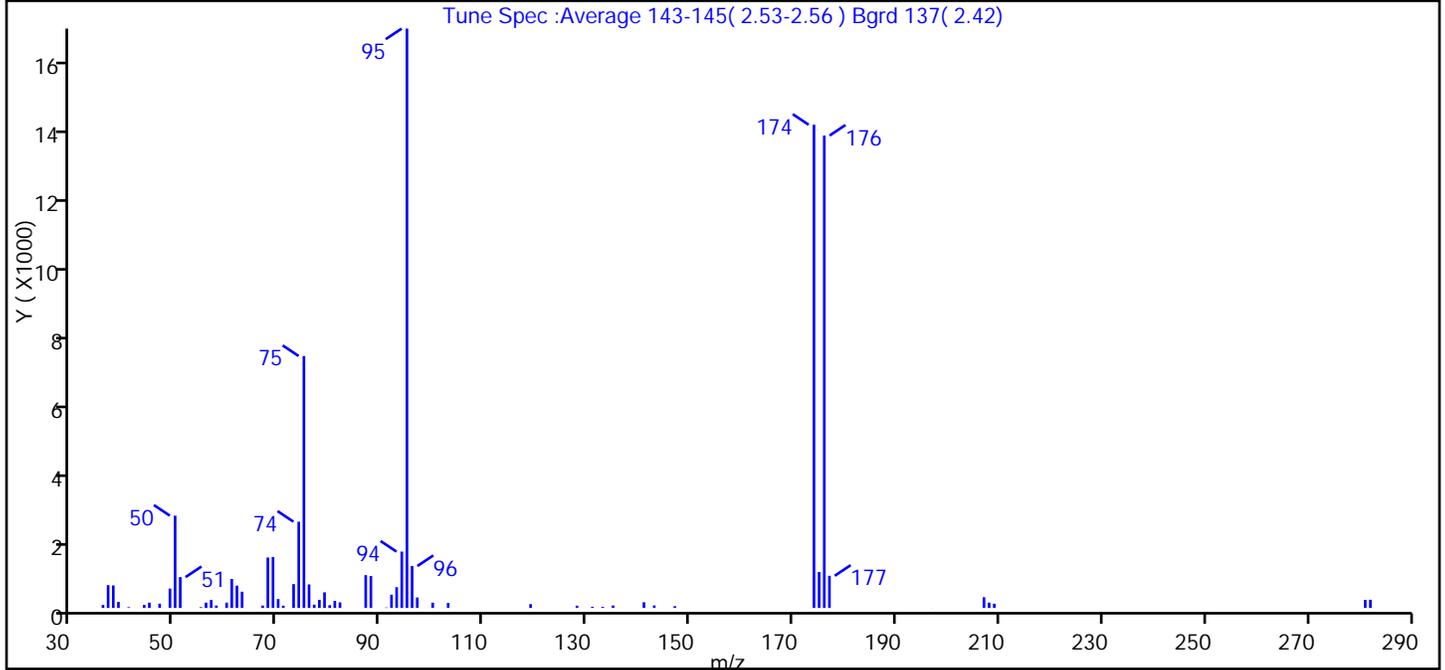
Reagents:

MV-BFB_00018 Amount Added: 1.00 Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8584.D
 Injection Date: 09-Jun-2015 17:29:30 Instrument ID: VMS_Z
 Lims ID: BFB
 Client ID:
 Operator ID: bergerb ALS Bottle#: 100 Worklist Smp#: 1
 Injection Vol: 1.0 uL Dil. Factor: 1.0000
 Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
 Tune Method: BFB Method 8260

\$ 7 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	15.9
75	30 to 60% of m/z 95	43.5
96	5 to 9% of m/z 95	7.2
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	83.4
175	5 to 9% of m/z 174	6.2 (7.4)
176	Greater than 95% but less than 101% of m/z 174	81.5 (97.8)
177	5 to 9% of m/z 176	5.6 (6.8)

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8584.D\AQ_VMSZ_8260.rslt\spectra.d
 Injection Date: 09-Jun-2015 17:29:30
 Spectrum: Tune Spec :Average 143-145(2.53-2.56) Bgrd 137(2.42)
 Base Peak: 95.00
 Minimum % Base Peak: 0
 Number of Points: 63

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	87	61.00	844	81.00	207	133.00	30
37.00	666	62.00	651	82.00	163	135.00	71
38.00	657	63.00	474	87.00	958	141.00	166
39.00	177	67.00	68	88.00	934	143.00	74
41.00	22	68.00	1472	91.00	12	147.00	52
44.00	89	69.00	1487	92.00	386	174.00	14105
45.00	154	70.00	260	93.00	606	175.00	1050
47.00	125	71.00	67	94.00	1644	176.00	13789
49.00	565	73.00	696	95.00	16912	177.00	939
50.00	2694	74.00	2517	96.00	1224	197.00	2
51.00	900	75.00	7354	97.00	306	207.00	313
55.00	22	76.00	687	100.00	153	208.00	154
56.00	156	77.00	96	103.00	147	209.00	124
57.00	233	78.00	235	119.00	112	281.00	234
58.00	71	79.00	456	128.00	66	282.00	240
60.00	156	80.00	81	131.00	34		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 280-281058/6
 Matrix: Water Lab File ID: Z8588.D
 Analysis Method: 8260B Date Collected: _____
 Sample wt/vol: 20 (mL) Date Analyzed: 06/09/2015 18:56
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 281058 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	0.80	U	1.0	0.80	0.17
71-55-6	1,1,1-Trichloroethane	0.40	U	1.0	0.40	0.16
79-34-5	1,1,2,2-Tetrachloroethane	0.80	U	1.0	0.80	0.20
79-00-5	1,1,2-Trichloroethane	0.80	U	1.0	0.80	0.32
75-34-3	1,1-Dichloroethane	0.80	U	1.0	0.80	0.16
75-35-4	1,1-Dichloroethene	0.80	U	1.0	0.80	0.14
563-58-6	1,1-Dichloropropene	0.40	U	1.0	0.40	0.15
87-61-6	1,2,3-Trichlorobenzene	0.229	J	1.0	0.80	0.18
96-18-4	1,2,3-Trichloropropane	0.80	U	3.0	0.80	0.77
120-82-1	1,2,4-Trichlorobenzene	0.80	U	1.0	0.80	0.32
95-63-6	1,2,4-Trimethylbenzene	0.40	U	1.0	0.40	0.14
96-12-8	1,2-Dibromo-3-Chloropropane	1.6	U	5.0	1.6	0.81
106-93-4	1,2-Dibromoethane	0.40	U	1.0	0.40	0.18
95-50-1	1,2-Dichlorobenzene	0.40	U	1.0	0.40	0.13
107-06-2	1,2-Dichloroethane	0.40	U	1.0	0.40	0.13
78-87-5	1,2-Dichloropropane	0.40	U	1.0	0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	0.40	U	1.0	0.40	0.14
541-73-1	1,3-Dichlorobenzene	0.40	U	1.0	0.40	0.16
142-28-9	1,3-Dichloropropane	0.80	U	1.0	0.80	0.15
106-46-7	1,4-Dichlorobenzene	0.40	U	1.0	0.40	0.16
594-20-7	2,2-Dichloropropane	0.40	U	1.0	0.40	0.20
78-93-3	2-Butanone (MEK)	4.0	U	6.0	4.0	1.8
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40	0.17
591-78-6	2-Hexanone	4.0	U	5.0	4.0	1.4
106-43-4	4-Chlorotoluene	0.80	U	1.0	0.80	0.17
108-10-1	4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	1.0
67-64-1	Acetone	6.4	U	10	6.4	1.9
71-43-2	Benzene	0.40	U	1.0	0.40	0.16
108-86-1	Bromobenzene	0.40	U	1.0	0.40	0.17
74-97-5	Bromochloromethane	0.20	U	1.0	0.20	0.10
75-27-4	Bromodichloromethane	0.40	U	1.0	0.40	0.17
75-25-2	Bromoform	0.40	U	1.0	0.40	0.19
74-83-9	Bromomethane	0.80	U	2.0	0.80	0.21
75-15-0	Carbon disulfide	1.6	U	2.0	1.6	0.45
56-23-5	Carbon tetrachloride	0.40	U	2.0	0.40	0.19
108-90-7	Chlorobenzene	0.40	U	1.0	0.40	0.17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 280-281058/6
 Matrix: Water Lab File ID: Z8588.D
 Analysis Method: 8260B Date Collected: _____
 Sample wt/vol: 20 (mL) Date Analyzed: 06/09/2015 18:56
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 281058 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
124-48-1	Chlorodibromomethane	0.40	U	1.0	0.40	0.17
75-00-3	Chloroethane	1.6	U	2.0	1.6	0.41
67-66-3	Chloroform	0.40	U	1.0	0.40	0.16
74-87-3	Chloromethane	0.80	U	2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-01-5	cis-1,3-Dichloropropene	0.40	U	1.0	0.40	0.16
74-95-3	Dibromomethane	0.40	U	1.0	0.40	0.17
75-71-8	Dichlorodifluoromethane	0.80	U	2.0	0.80	0.31
100-41-4	Ethylbenzene	0.40	U	1.0	0.40	0.16
87-68-3	Hexachlorobutadiene	0.80	U	1.0	0.80	0.36
98-82-8	Isopropylbenzene	0.40	U	1.0	0.40	0.19
1634-04-4	Methyl tert-butyl ether	0.80	U	5.0	0.80	0.25
75-09-2	Methylene Chloride	0.534	J	5.0	0.80	0.32
179601-23-1	m-Xylene & p-Xylene	0.80	U	2.0	0.80	0.34
91-20-3	Naphthalene	0.80	U	1.0	0.80	0.22
104-51-8	n-Butylbenzene	0.80	U	1.0	0.80	0.32
103-65-1	N-Propylbenzene	0.40	U	1.0	0.40	0.16
95-47-6	o-Xylene	0.40	U	1.0	0.40	0.19
99-87-6	p-Isopropyltoluene	0.40	U	1.0	0.40	0.17
135-98-8	sec-Butylbenzene	0.40	U	1.0	0.40	0.17
100-42-5	Styrene	0.40	U	1.0	0.40	0.17
75-65-0	tert-Butyl alcohol	32	U	50	32	11
98-06-6	tert-Butylbenzene	0.40	U	1.0	0.40	0.16
127-18-4	Tetrachloroethene	0.40	U	1.0	0.40	0.20
108-88-3	Toluene	0.40	U	1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-02-6	trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.19
79-01-6	Trichloroethene	0.40	U	1.0	0.40	0.16
75-69-4	Trichlorofluoromethane	0.80	U	2.0	0.80	0.29
75-01-4	Vinyl chloride	0.20	U	1.5	0.20	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 280-281058/6
 Matrix: Water Lab File ID: Z8588.D
 Analysis Method: 8260B Date Collected: _____
 Sample wt/vol: 20 (mL) Date Analyzed: 06/09/2015 18:56
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 281058 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		81-118
460-00-4	4-Bromofluorobenzene (Surr)	104		85-114
1868-53-7	Dibromofluoromethane (Surr)	108		80-119
2037-26-5	Toluene-d8 (Surr)	103		89-112

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8588.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 09-Jun-2015 18:56:30 ALS Bottle#: 4 Worklist Smp#: 6
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: mb af
 Operator ID: bergerb Instrument ID: VMS_Z
 Method: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\AQ_VMSZ_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 10-Jun-2015 15:45:19 Calib Date: 02-Jun-2015 01:06:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8233.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK012

First Level Reviewer: bergerb Date: 10-Jun-2015 15:47:35

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.467	3.479	-0.012	94	133706	250.0	250.0	
* 2 Fluorobenzene	96	6.390	6.384	0.006	98	785664	12.5	12.5	
* 3 1,4-Dioxane-d8	96		7.292					ND	
* 4 Chlorobenzene-d5	119	11.019	11.013	0.006	83	209551	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.125	15.120	0.005	95	326176	12.5	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.468	5.462	0.006	94	427094	10.5	11.4	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	5.903	5.897	0.006	93	144848	10.5	10.2	
\$ 10 Toluene-d8 (Surr)	98	8.705	8.699	0.006	92	736324	10.5	10.8	
\$ 11 4-Bromofluorobenzene (Surr	95	13.055	13.049	0.006	92	405211	10.5	11.0	
\$ 6 Trifluorotoluene (Surr)	1		0.000					ND	
\$ 7 BFB	95		2.544					ND	
26 Chlorotrifluoroethene	116		1.824					ND	
27 Dichlorodifluoromethane	85		1.913					ND	
29 1,2-Dichloro-1,1,2,2-tetra	85		1.946					ND	
30 Chloromethane	50		1.982					ND	
31 Butadiene	54		2.087					ND	
33 2-Chloro-1,1,1-Trifluoroet	118		2.102					ND	
32 Vinyl chloride	62		2.104					ND	
34 Ethylene oxide	43		2.300					ND	
35 Bromomethane	94		2.330					ND	
36 Chloroethane	64		2.382					ND	
37 Dichlorofluoromethane	67		2.539					ND	
38 Trichlorofluoromethane	101		2.591					ND	
41 1,2-Dichloro-1,1,2-trifluo	117		2.746					ND	
43 1,1,1-Trifluoro-2,2-dichlo	83		2.781					ND	
40 Ethyl ether	59		2.800					ND	
39 Ethanol	45		2.840					ND	
42 Propene oxide	58		2.874					ND	
44 Acrolein	56		2.904					ND	
45 1,1-Dichloroethene	96		3.026					ND	
48 Acetone	43		3.026					ND	
46 1,1,2-Trichloro-1,2,2-trif	151		3.078					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
49 Iodomethane	142		3.183					ND	
47 Isopropyl alcohol	45		3.188					ND	
50 Carbon disulfide	76		3.270					ND	
53 Acetonitrile	41		3.327					ND	
52 3-Chloro-1-propene	41		3.339					ND	
51 Methyl acetate	43		3.339					ND	
54 Methylene Chloride	84	3.450	3.461	-0.011	58	10101		0.5337	
55 2-Methyl-2-propanol	59		3.566					ND	
58 Acrylonitrile	53		3.670					ND	
57 trans-1,2-Dichloroethene	96		3.757					ND	
56 Methyl tert-butyl ether	73		3.774					ND	
59 Hexane	57		4.053					ND	
62 1,1-Dichloroethane	63		4.192					ND	
61 Vinyl acetate	43		4.209					ND	
60 Isopropyl ether	87		4.301					ND	
63 2-Chloro-1,3-butadiene	53		4.319					ND	
64 Tert-butyl ethyl ether	59		4.736					ND	
67 2-Butanone (MEK)	43		4.853					ND	
65 cis-1,2-Dichloroethene	96		4.871					ND	
66 2,2-Dichloropropane	77		4.888					ND	
69 Propionitrile	54		4.928					ND	
68 Ethyl acetate	43		4.945					ND	
70 sec-Butyl Alcohol	45		5.097					ND	
73 Methacrylonitrile	41		5.119					ND	
71 Chlorobromomethane	128		5.166					ND	
72 Tetrahydrofuran	42		5.253					ND	
74 Chloroform	83		5.253					ND	
75 1,1,1-Trichloroethane	97		5.549					ND	
76 Cyclohexane	56		5.636					ND	
78 1,1-Dichloropropene	75		5.741					ND	
77 Carbon tetrachloride	117		5.775					ND	
80 Isobutyl alcohol	41		5.862					ND	
82 1,2-Dichloroethane	62		6.002					ND	
81 Benzene	78		6.002					ND	
83 Tert-amyl methyl ether	73		6.198					ND	
84 n-Heptane	43		6.402					ND	
88 Ethyl acrylate	55		6.789					ND	
86 n-Butanol	56		6.807					ND	
85 Trichloroethene	95		6.907					ND	
89 2-Pentanone	43		7.133					ND	
90 1,2-Dichloropropane	63		7.202					ND	
87 Methylcyclohexane	55		7.220					ND	
92 Dibromomethane	93		7.376					ND	
91 Methyl methacrylate	100		7.398					ND	
93 1,4-Dioxane	88		7.429					ND	
94 Dichlorobromomethane	83		7.603					ND	
95 2-Nitropropane	41		7.903					ND	
96 2-Chloroethyl vinyl ether	63		8.055					ND	
97 cis-1,3-Dichloropropene	75		8.264					ND	
98 4-Methyl-2-pentanone (MIBK)	43		8.525					ND	
99 Toluene	91		8.803					ND	
100 trans-1,3-Dichloropropene	75		9.116					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
101 Ethyl methacrylate	69		9.325					ND	
102 1,1,2-Trichloroethane	97		9.412					ND	
104 1,3-Dichloropropane	76		9.673					ND	
103 Tetrachloroethene	164		9.708					ND	
105 2-Hexanone	43		9.865					ND	
108 n-Butyl acetate	43		9.866					ND	
106 Tetrahydrothiophene	60		10.043					ND	
107 Chlorodibromomethane	129		10.056					ND	
109 Ethylene Dibromide	107		10.230					ND	
155 1,3-Butadiene TIC	39		10.778					ND	
152 Propene TIC	41	10.706	10.778	-0.072	0	554		0.0330	
153 Dicyclopentadiene TIC	66		10.778					ND	
154 4-Ethyltoluene TIC	105		10.778					ND	
111 Chlorobenzene	112		11.065					ND	
110 1-Chlorohexane	91		11.065					ND	
113 1,1,1,2-Tetrachloroethane	131		11.222					ND	
112 Ethylbenzene	106		11.274					ND	
114 m-Xylene & p-Xylene	106		11.483					ND	
115 o-Xylene	106		12.162					ND	
116 Styrene	104		12.179					ND	
117 Bromoform	173		12.457					ND	
118 Isopropylbenzene	105		12.823					ND	
120 cis-1,4-Dichloro-2-butene	53		12.897					ND	
119 Cyclohexanone	55		12.945					ND	
121 Bromobenzene	156		13.293					ND	
122 1,1,2,2-Tetrachloroethane	83		13.310					ND	
124 1,2,3-Trichloropropane	110		13.362					ND	
125 trans-1,4-Dichloro-2-buten	53		13.414					ND	
123 N-Propylbenzene	120		13.536					ND	
126 2-Chlorotoluene	126		13.658					ND	
128 4-Chlorotoluene	126		13.849					ND	
127 1,3,5-Trimethylbenzene	105		13.867					ND	
129 tert-Butylbenzene	119		14.441					ND	
130 1,2,4-Trimethylbenzene	105		14.528					ND	
131 sec-Butylbenzene	134		14.841					ND	
132 1,3-Dichlorobenzene	146		14.998					ND	
133 4-Isopropyltoluene	119		15.120					ND	
134 1,4-Dichlorobenzene	146		15.154					ND	
136 Benzyl chloride	126		15.156					ND	
135 1,2,3-Trimethylbenzene	105		15.281					ND	
138 1,2-Dichlorobenzene	146		15.798					ND	
137 n-Butylbenzene	91		15.850					ND	
139 1,2-Dibromo-3-Chloropropan	157		16.929					ND	
140 1,3,5-Trichlorobenzene	180		17.212					ND	
141 1,2,4-Trichlorobenzene	180	17.875	17.869	0.006	81	4868		0.1810	
142 Hexachlorobutadiene	225		18.060					ND	
143 Naphthalene	128		18.095					ND	
144 1,2,3-Trichlorobenzene	180	18.379	18.339	0.040	26	4717		0.2288	
15 2-Methylnaphthalene	142		0.000					ND	
12 2,2,3-Trimethylbutane	1		0.000					ND	
16 2-Methylhexane	1		0.000					ND	
23 2,4-Dimethylpentane	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
17 n-Nonyl Aldehyde	1		0.000					ND	
14 3-Methylhexane	1		0.000					ND	
19 2-Butoxyethanol TIC	1		0.000					ND	
18 Pentachloroethane	167		0.000					ND	
13 2,3-Dimethylpentane	1		0.000					ND	
20 3,3-Dimethylpentane	1		0.000					ND	
22 Dimethyl disulfide	1		0.000					ND	
21 2,2-Dimethylpentane	1		0.000					ND	
24 2,3-dichloro-1-propene TIC	75		1.000					ND	
25 Dichloroacetonitrile TIC	74		1.000					ND	
28 3-Ethylpentane	1		1.795					ND	
79 Propene oxide TIC	58		5.334					ND	
S 145 1,2-Dichloroethene, Total	1		0.000					ND	
S 146 Xylenes, Total	106		0.000					ND	
S 147 1,2-Dichloroethene, Total	96		0.000					ND	
S 148 1,3-Dichloropropene, Total	1		0.000					ND	
S 149 Trihalomethanes, Total	1		0.000					ND	
S 150 Xylenes, Total (URS)	1		0.000					ND	
S 151 Total BTEX	1		0.000					ND	

Reagents:

MV-567649-D_00001

Amount Added: 1.00

Units: uL

Run Reagent

MV-ARCH SS A_00047

Amount Added: 0.84

Units: uL

Run Reagent

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8588.D

Injection Date: 09-Jun-2015 18:56:30

Instrument ID: VMS_Z

Operator ID: bergerb

Lims ID: MB

Worklist Smp#: 6

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

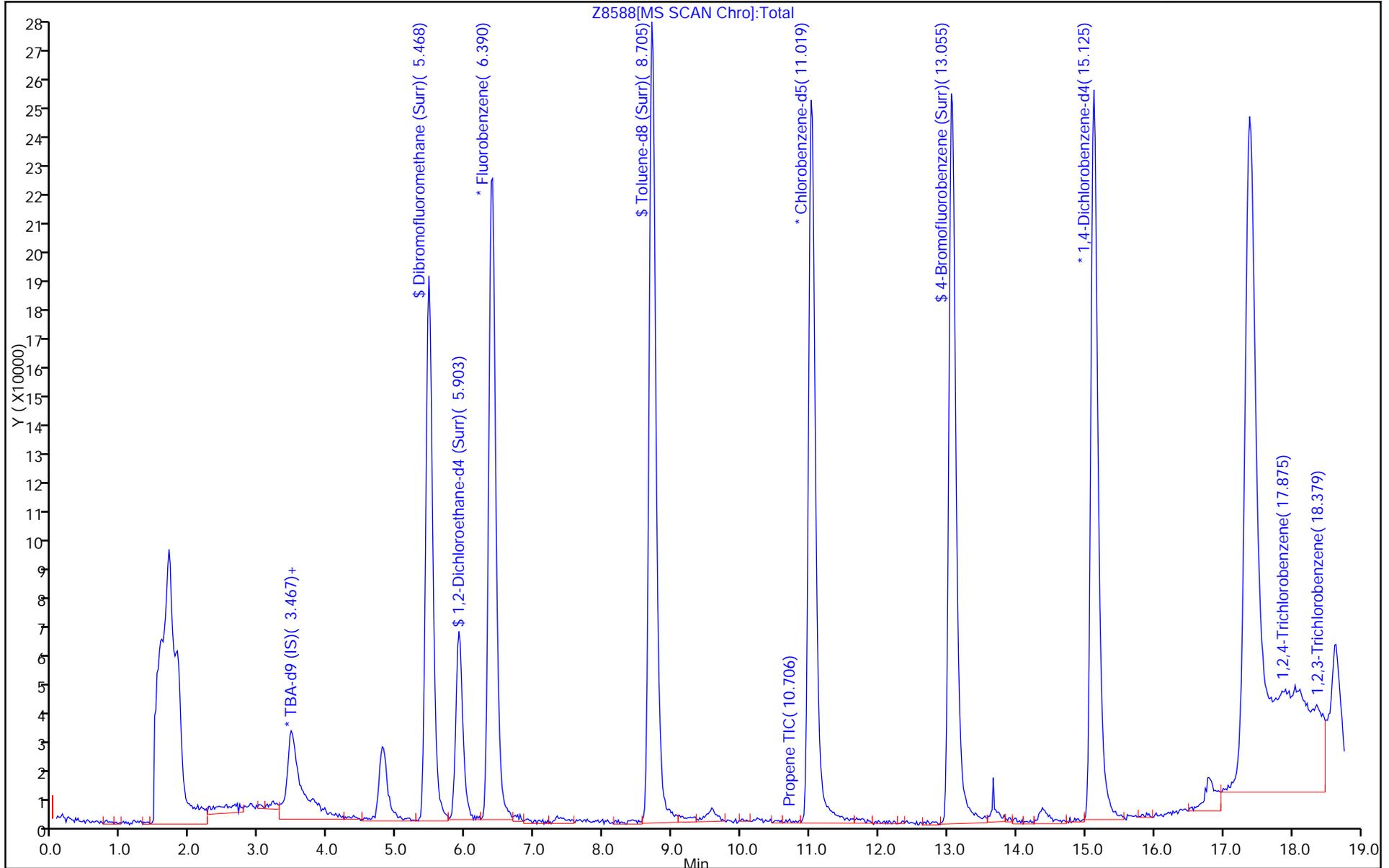
ALS Bottle#: 4

Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8588.D

Injection Date: 09-Jun-2015 18:56:30

Instrument ID: VMS_Z

Lims ID: MB

Client ID:

Operator ID: bergerb

ALS Bottle#: 4

Worklist Smp#: 6

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

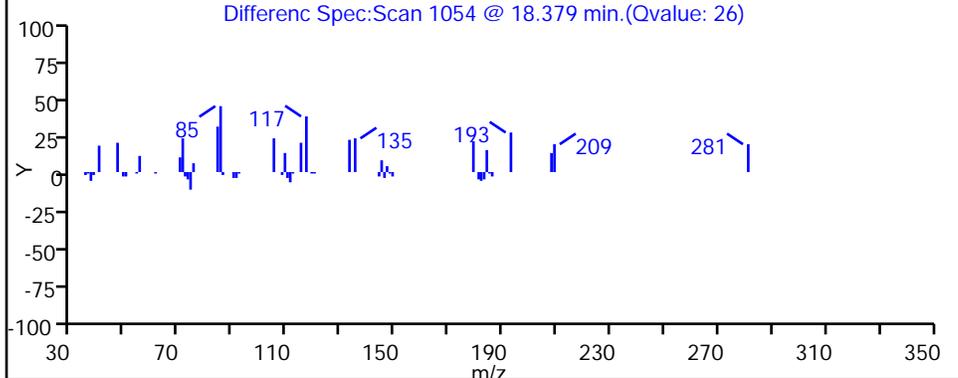
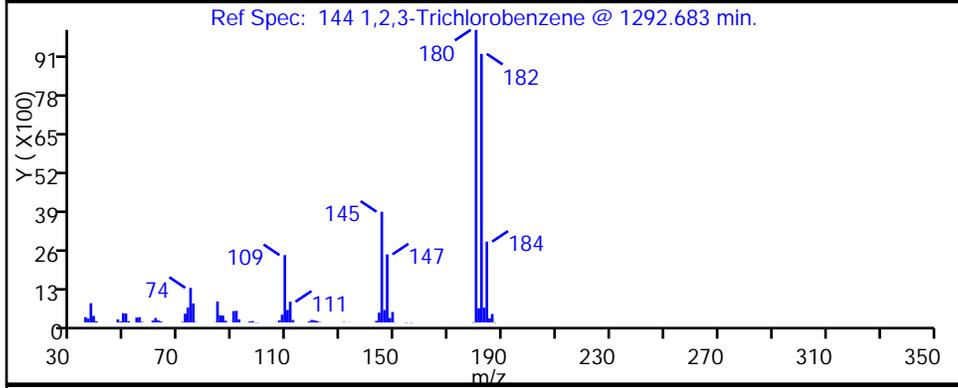
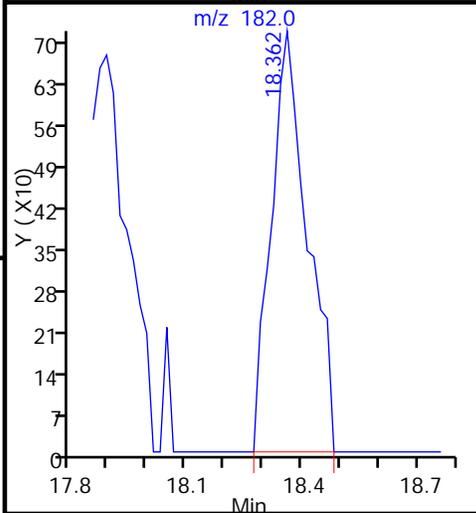
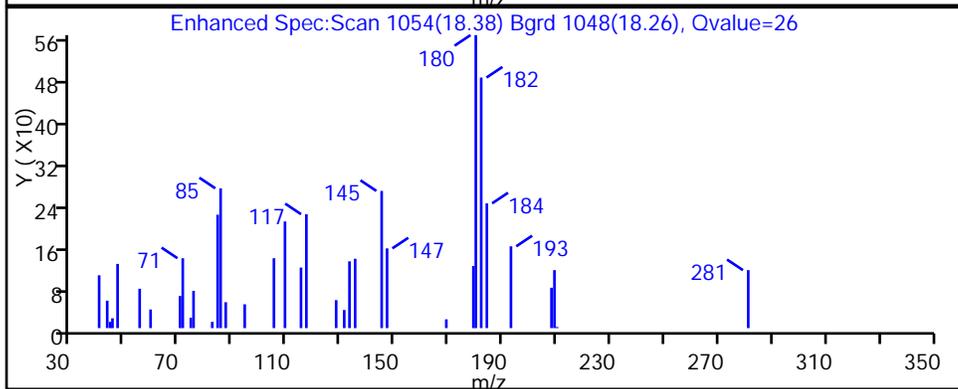
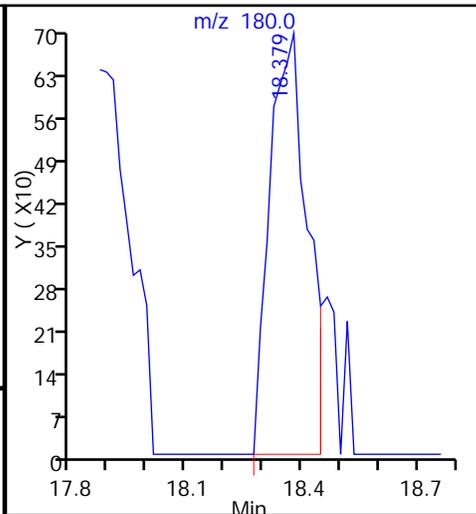
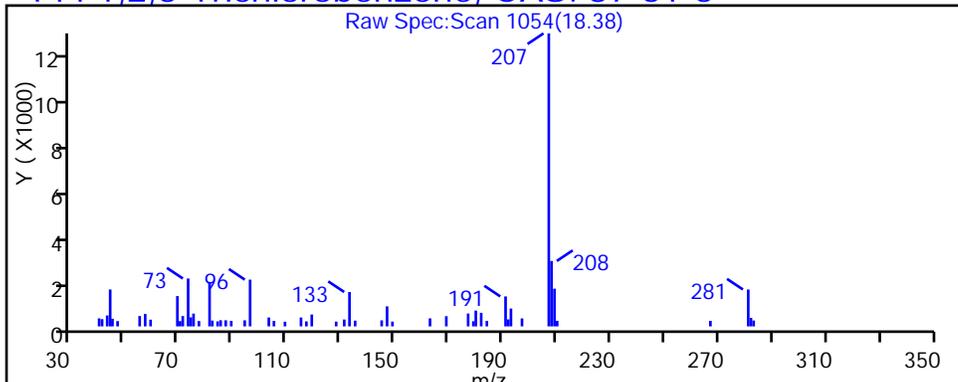
Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Detector: MS SCAN

144 1,2,3-Trichlorobenzene, CAS: 87-61-6



TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8588.D

Injection Date: 09-Jun-2015 18:56:30

Instrument ID: VMS_Z

Lims ID: MB

Client ID:

Operator ID: bergerb

ALS Bottle#: 4

Worklist Smp#: 6

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

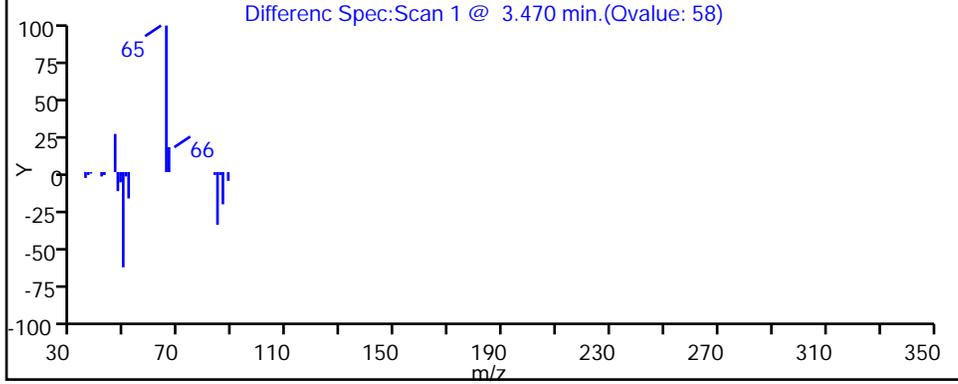
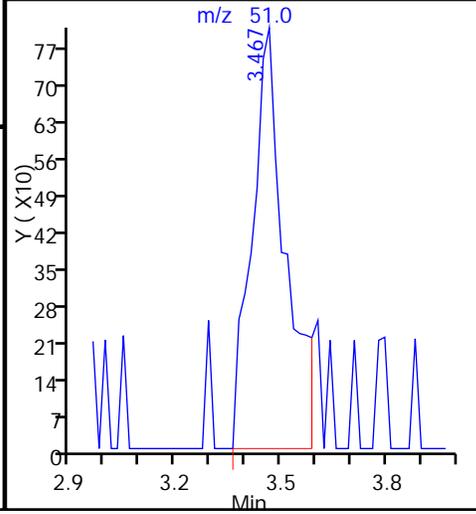
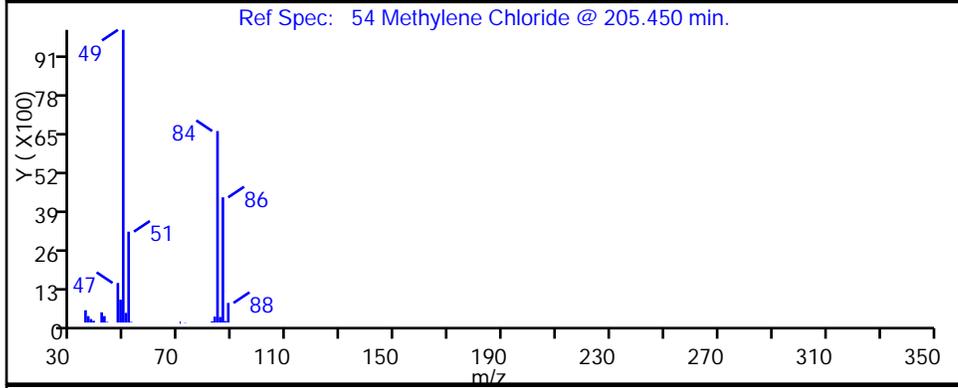
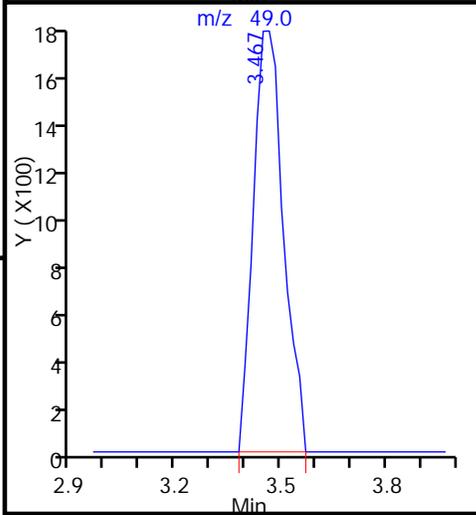
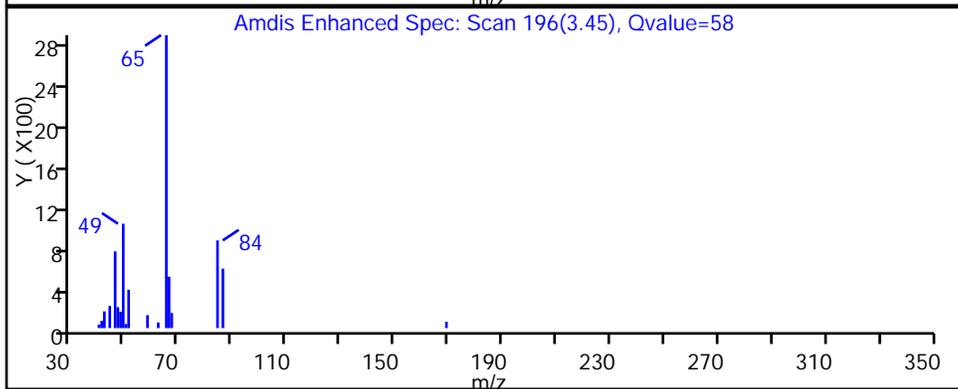
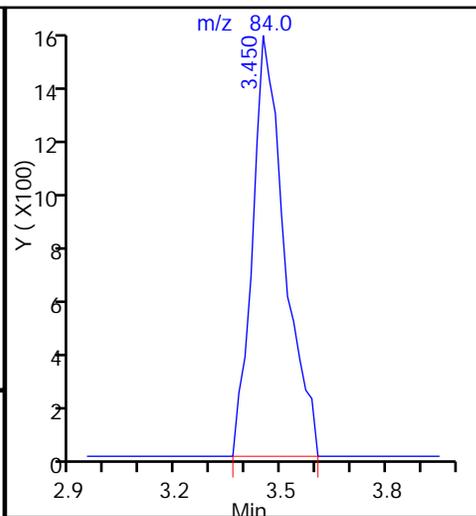
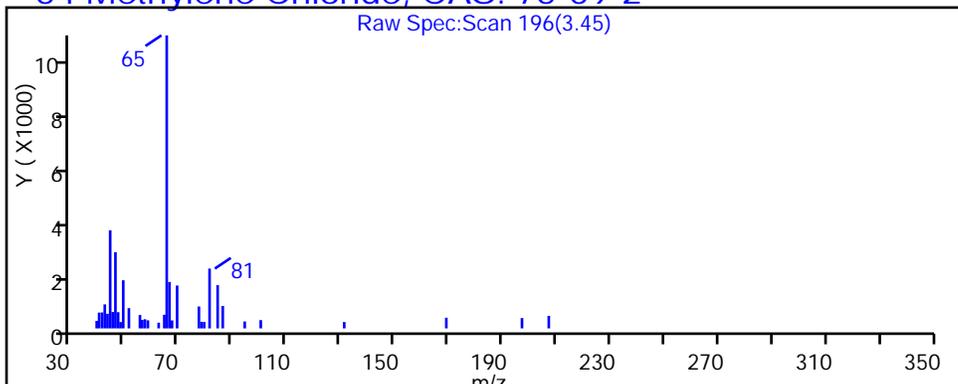
Method: AQ_VMSZ_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Detector: MS SCAN

54 Methylene Chloride, CAS: 75-09-2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 280-281475/6
 Matrix: Water Lab File ID: H3594.D
 Analysis Method: 8260B Date Collected: _____
 Sample wt/vol: 20 (mL) Date Analyzed: 06/11/2015 20:35
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 281475 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	0.80	U	1.0	0.80	0.17
71-55-6	1,1,1-Trichloroethane	0.40	U	1.0	0.40	0.16
79-34-5	1,1,2,2-Tetrachloroethane	0.80	U	1.0	0.80	0.20
79-00-5	1,1,2-Trichloroethane	0.80	U	1.0	0.80	0.32
75-34-3	1,1-Dichloroethane	0.80	U	1.0	0.80	0.16
75-35-4	1,1-Dichloroethene	0.80	U	1.0	0.80	0.14
563-58-6	1,1-Dichloropropene	0.40	U	1.0	0.40	0.15
87-61-6	1,2,3-Trichlorobenzene	0.80	U	1.0	0.80	0.18
96-18-4	1,2,3-Trichloropropane	0.80	U	3.0	0.80	0.77
120-82-1	1,2,4-Trichlorobenzene	0.80	U	1.0	0.80	0.32
95-63-6	1,2,4-Trimethylbenzene	0.40	U	1.0	0.40	0.14
96-12-8	1,2-Dibromo-3-Chloropropane	1.6	U	5.0	1.6	0.81
106-93-4	1,2-Dibromoethane	0.40	U	1.0	0.40	0.18
95-50-1	1,2-Dichlorobenzene	0.40	U	1.0	0.40	0.13
107-06-2	1,2-Dichloroethane	0.40	U	1.0	0.40	0.13
78-87-5	1,2-Dichloropropane	0.40	U	1.0	0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	0.40	U	1.0	0.40	0.14
541-73-1	1,3-Dichlorobenzene	0.40	U	1.0	0.40	0.16
142-28-9	1,3-Dichloropropane	0.80	U	1.0	0.80	0.15
106-46-7	1,4-Dichlorobenzene	0.40	U	1.0	0.40	0.16
594-20-7	2,2-Dichloropropane	0.40	U	1.0	0.40	0.20
78-93-3	2-Butanone (MEK)	4.0	U	6.0	4.0	1.8
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40	0.17
591-78-6	2-Hexanone	4.0	U	5.0	4.0	1.4
106-43-4	4-Chlorotoluene	0.80	U	1.0	0.80	0.17
108-10-1	4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	1.0
67-64-1	Acetone	6.4	U	10	6.4	1.9
71-43-2	Benzene	0.40	U	1.0	0.40	0.16
108-86-1	Bromobenzene	0.40	U	1.0	0.40	0.17
74-97-5	Bromochloromethane	0.20	U	1.0	0.20	0.10
75-27-4	Bromodichloromethane	0.40	U	1.0	0.40	0.17
75-25-2	Bromoform	0.40	U	1.0	0.40	0.19
74-83-9	Bromomethane	0.80	U	2.0	0.80	0.21
75-15-0	Carbon disulfide	1.6	U	2.0	1.6	0.45
56-23-5	Carbon tetrachloride	0.40	U	2.0	0.40	0.19
108-90-7	Chlorobenzene	0.40	U	1.0	0.40	0.17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 280-281475/6
 Matrix: Water Lab File ID: H3594.D
 Analysis Method: 8260B Date Collected: _____
 Sample wt/vol: 20 (mL) Date Analyzed: 06/11/2015 20:35
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 281475 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
124-48-1	Chlorodibromomethane	0.40	U	1.0	0.40	0.17
75-00-3	Chloroethane	1.6	U	2.0	1.6	0.41
67-66-3	Chloroform	0.40	U	1.0	0.40	0.16
74-87-3	Chloromethane	0.80	U	2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-01-5	cis-1,3-Dichloropropene	0.40	U	1.0	0.40	0.16
74-95-3	Dibromomethane	0.40	U	1.0	0.40	0.17
75-71-8	Dichlorodifluoromethane	0.80	U	2.0	0.80	0.31
100-41-4	Ethylbenzene	0.40	U	1.0	0.40	0.16
87-68-3	Hexachlorobutadiene	0.80	U	1.0	0.80	0.36
98-82-8	Isopropylbenzene	0.40	U	1.0	0.40	0.19
1634-04-4	Methyl tert-butyl ether	0.80	U	5.0	0.80	0.25
75-09-2	Methylene Chloride	0.80	U	5.0	0.80	0.32
179601-23-1	m-Xylene & p-Xylene	0.80	U	2.0	0.80	0.34
91-20-3	Naphthalene	0.80	U	1.0	0.80	0.22
104-51-8	n-Butylbenzene	0.80	U	1.0	0.80	0.32
103-65-1	N-Propylbenzene	0.40	U	1.0	0.40	0.16
95-47-6	o-Xylene	0.40	U	1.0	0.40	0.19
99-87-6	p-Isopropyltoluene	0.40	U	1.0	0.40	0.17
135-98-8	sec-Butylbenzene	0.40	U	1.0	0.40	0.17
100-42-5	Styrene	0.40	U	1.0	0.40	0.17
75-65-0	tert-Butyl alcohol	32	U	50	32	11
98-06-6	tert-Butylbenzene	0.40	U	1.0	0.40	0.16
127-18-4	Tetrachloroethene	0.40	U	1.0	0.40	0.20
108-88-3	Toluene	0.40	U	1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-02-6	trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.19
79-01-6	Trichloroethene	0.40	U	1.0	0.40	0.16
75-69-4	Trichlorofluoromethane	0.80	U	2.0	0.80	0.29
75-01-4	Vinyl chloride	0.20	U	1.5	0.20	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 280-281475/6
 Matrix: Water Lab File ID: H3594.D
 Analysis Method: 8260B Date Collected: _____
 Sample wt/vol: 20 (mL) Date Analyzed: 06/11/2015 20:35
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 281475 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		81-118
460-00-4	4-Bromofluorobenzene (Surr)	97		85-114
1868-53-7	Dibromofluoromethane (Surr)	103		80-119
2037-26-5	Toluene-d8 (Surr)	98		89-112

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150611-35960.b\H3594.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 11-Jun-2015 20:35:30 ALS Bottle#: 5 Worklist Smp#: 6
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: MB AF
 Operator ID: bergerb Instrument ID: VMS_H
 Method: \\Denchrom\ChromData\VMS_H\20150611-35960.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 12-Jun-2015 11:40:30 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK002

First Level Reviewer: bergerb

Date: 12-Jun-2015 11:42:04

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.988	3.987	0.001	98	221867	250.0	250.0	
* 2 Fluorobenzene	96	6.756	6.772	-0.016	97	1148576	12.5	12.5	
* 3 1,4-Dioxane-d8	96		8.670					ND	
* 4 Chlorobenzene-d5	119	11.108	11.107	0.001	92	277852	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.120	14.119	0.001	98	427589	12.5	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.920	5.937	-0.017	92	505962	8.50	8.72	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	6.338	6.355	-0.017	83	273425	8.50	8.51	
\$ 10 Toluene-d8 (Surr)	98	8.880	8.879	0.001	95	1125699	8.50	8.30	
\$ 11 4-Bromofluorobenzene (Surr	95	12.762	12.761	0.001	80	601697	8.50	8.22	
\$ 152 Trifluorotoluene (Surr)	1		0.000					ND	
\$ 7 BFB	95		2.473					ND	
27 Chlorotrifluoroethene	116		2.173					ND	
28 Dichlorodifluoromethane	85		2.176					ND	
30 Chloromethane	50		2.263					ND	
29 1,2-Dichloro-1,1,2,2-tetra	85		2.329					ND	
31 Butadiene	54		2.385					ND	
32 Vinyl chloride	62		2.403					ND	
33 2-Chloro-1,1,1-Trifluoroet	118		2.521					ND	
34 Ethylene oxide	43		2.648					ND	
35 Bromomethane	94		2.681					ND	
36 Chloroethane	64		2.751					ND	
37 Dichlorofluoromethane	67		2.942					ND	
38 Trichlorofluoromethane	101		2.995					ND	
39 Ethanol	45		3.152					ND	
40 Ethyl ether	59		3.221					ND	
43 Propene oxide	58		3.309					ND	
41 1,2-Dichloro-1,1,2-trifluo	117		3.322					ND	
42 1,1,1-Trifluoro-2,2-dichlo	83		3.374					ND	
44 Acrolein	56		3.378					ND	
45 1,1-Dichloroethene	96		3.482					ND	
47 Acetone	43		3.517					ND	
46 1,1,2-Trichloro-1,2,2-trif	151		3.517					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
49 Isopropyl alcohol	45		3.640					ND	
48 Iodomethane	142		3.656					ND	
50 Carbon disulfide	76		3.726					ND	
51 Acetonitrile	41		3.814					ND	
52 3-Chloro-1-propene	41		3.830					ND	
53 Methyl acetate	43		3.830					ND	
54 Methylene Chloride	84	3.953	3.952	0.001	96	19411		0.1962	
55 2-Methyl-2-propanol	59		4.074					ND	
57 Acrylonitrile	53		4.213					ND	
56 Methyl tert-butyl ether	73		4.248					ND	
58 trans-1,2-Dichloroethene	96		4.248					ND	
59 Hexane	57		4.509					ND	
60 1,1-Dichloroethane	63		4.701					ND	
61 Vinyl acetate	43		4.718					ND	
62 Isopropyl ether	87		4.754					ND	
63 2-Chloro-1,3-butadiene	53		4.789					ND	
64 Tert-butyl ethyl ether	59		5.172					ND	
67 2-Butanone (MEK)	43		5.362					ND	
65 cis-1,2-Dichloroethene	96		5.362					ND	
66 2,2-Dichloropropane	77		5.380					ND	
69 Ethyl acetate	43		5.416					ND	
70 Propionitrile	54		5.451					ND	
71 sec-Butyl Alcohol	45		5.589					ND	
72 Methacrylonitrile	41		5.625					ND	
73 Chlorobromomethane	128		5.658					ND	
74 Tetrahydrofuran	42		5.710					ND	
75 Chloroform	83		5.728					ND	
76 1,1,1-Trichloroethane	97		5.989					ND	
77 Cyclohexane	56		6.059					ND	
78 1,1-Dichloropropene	75		6.163					ND	
79 Carbon tetrachloride	117		6.180					ND	
80 Isobutyl alcohol	41		6.302					ND	
81 Benzene	78		6.424					ND	
82 1,2-Dichloroethane	62		6.442					ND	
83 Tert-amyl methyl ether	73		6.547					ND	
84 n-Heptane	43		6.720					ND	
85 n-Butanol	56		7.157					ND	
86 Trichloroethene	95		7.242					ND	
87 Ethyl acrylate	55	7.400	7.348	0.052	0	1543		NC	
88 2-Pentanone	43		7.469					ND	
89 Methylcyclohexane	55		7.504					ND	
90 1,2-Dichloropropane	63		7.538					ND	
91 Methyl methacrylate	100		7.662					ND	
92 Dibromomethane	93		7.695					ND	
93 1,4-Dioxane	88		7.730					ND	
94 Dichlorobromomethane	83		7.904					ND	
95 2-Nitropropane	41		8.201					ND	
96 2-Chloroethyl vinyl ether	63		8.304					ND	
97 cis-1,3-Dichloropropene	75		8.496					ND	
98 4-Methyl-2-pentanone (MIBK)	43		8.722					ND	
99 Toluene	91		8.983					ND	
100 trans-1,3-Dichloropropene	75		9.279					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
101 Ethyl methacrylate	69		9.419					ND	
102 1,1,2-Trichloroethane	97		9.558					ND	
103 Tetrachloroethene	164		9.767					ND	
104 1,3-Dichloropropane	76		9.802					ND	
105 2-Hexanone	43		9.924					ND	
107 Tetrahydrothiophene	60		10.134					ND	
108 Chlorodibromomethane	129		10.150					ND	
106 n-Butyl acetate	43	10.168	10.226	-0.058	0	772			NC
109 Ethylene Dibromide	107		10.341					ND	
110 1-Chlorohexane	91		11.125					ND	
111 Chlorobenzene	112		11.160					ND	
112 1,1,1,2-Tetrachloroethane	131		11.281					ND	
113 Ethylbenzene	106		11.334					ND	
114 m-Xylene & p-Xylene	106		11.508					ND	
115 o-Xylene	106		12.082					ND	
116 Styrene	104		12.100					ND	
117 Bromoform	173		12.343					ND	
118 Isopropylbenzene	105		12.570					ND	
119 cis-1,4-Dichloro-2-butene	53		12.658					ND	
120 Cyclohexanone	55		12.692					ND	
122 Bromobenzene	156		12.953					ND	
121 1,1,2,2-Tetrachloroethane	83		12.953					ND	
123 1,2,3-Trichloropropane	110		13.005					ND	
124 trans-1,4-Dichloro-2-buten	53		13.022					ND	
125 N-Propylbenzene	120		13.092					ND	
126 2-Chlorotoluene	126		13.179					ND	
127 1,3,5-Trimethylbenzene	105		13.301					ND	
128 4-Chlorotoluene	126		13.318					ND	
129 tert-Butylbenzene	119		13.684					ND	
22 Pentachloroethane	167		13.721					ND	
130 1,2,4-Trimethylbenzene	105		13.736					ND	
131 sec-Butylbenzene	134		13.928					ND	
132 1,3-Dichlorobenzene	146		14.050					ND	
133 4-Isopropyltoluene	119		14.084					ND	
134 1,4-Dichlorobenzene	146		14.137					ND	
135 1,2,3-Trimethylbenzene	105		14.190					ND	
136 Benzyl chloride	126		14.352					ND	
137 n-Butylbenzene	91		14.520					ND	
138 1,2-Dichlorobenzene	146		14.537					ND	
139 1,2-Dibromo-3-Chloropropan	157		15.303					ND	
140 1,3,5-Trichlorobenzene	180		15.513					ND	
141 1,2,4-Trichlorobenzene	180		16.087					ND	
142 Hexachlorobutadiene	225		16.226					ND	
143 Naphthalene	128		16.313					ND	
144 1,2,3-Trichlorobenzene	180		16.539					ND	
20 2-Methylnaphthalene	142		0.000					ND	
18 2,2-Dimethylpentane	1		0.000					ND	
23 2-Methylhexane	1		0.000					ND	
21 2,4-Dimethylpentane	1		0.000					ND	
157 Propene	1		0.000					ND	
158 Dicyclopentadiene	1		0.000					ND	
24 3-Methylhexane	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
19 2,3-Dimethylpentane	1		0.000					ND	
15 Dimethyl disulfide	1		0.000					ND	
159 4-Ethyltoluene	1		0.000					ND	
16 3,3-Dimethylpentane	1		0.000					ND	
17 2,2,3-Trimethylbutane	1		0.000					ND	
12 3-Ethylpentane	1		0.000					ND	
13 n-Nonyl Aldehyde	1		0.000					ND	
14 2-Butoxyethanol TIC	1		0.000					ND	
S 151 1,2-Dichloroethene, Total	96		2.000					ND	
S 149 1,2-Dichloroethene, Total	1		0.000					ND	
S 150 Xylenes, Total	106		0.000					ND	
S 160 TAH	1				0			0	
S 148 1,3-Dichloropropene, Total	1		0.000					ND	
S 145 Trihalomethanes, Total	1		0.000					ND	
S 146 Xylenes, Total (URS)	1		0.000					ND	
S 147 Total BTEX	1		0.000					ND	
T 26 2,3-dichloro-1-propene TIC	75		1.000					ND	
T 25 Dichloroacetonitrile TIC	74		1.000					ND	
T 68 Propene oxide TIC	58		5.334					ND	
T 154 Dicyclopentadiene TIC	1		0.000					ND	
T 156 1,3-Butadiene TIC	1		0.000					ND	
T 153 Propene TIC	1		0.000					ND	
T 155 4-Ethyltoluene TIC	1		0.000					ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

MV-568718-D_00002

Amount Added: 1.00

Units: uL

Run Reagent

MV-ARCH SS A_00042

Amount Added: 0.68

Units: uL

Run Reagent

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150611-35960.b\H3594.D

Injection Date: 11-Jun-2015 20:35:30

Instrument ID: VMS_H

Operator ID: bergerb

Lims ID: MB

Worklist Smp#: 6

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

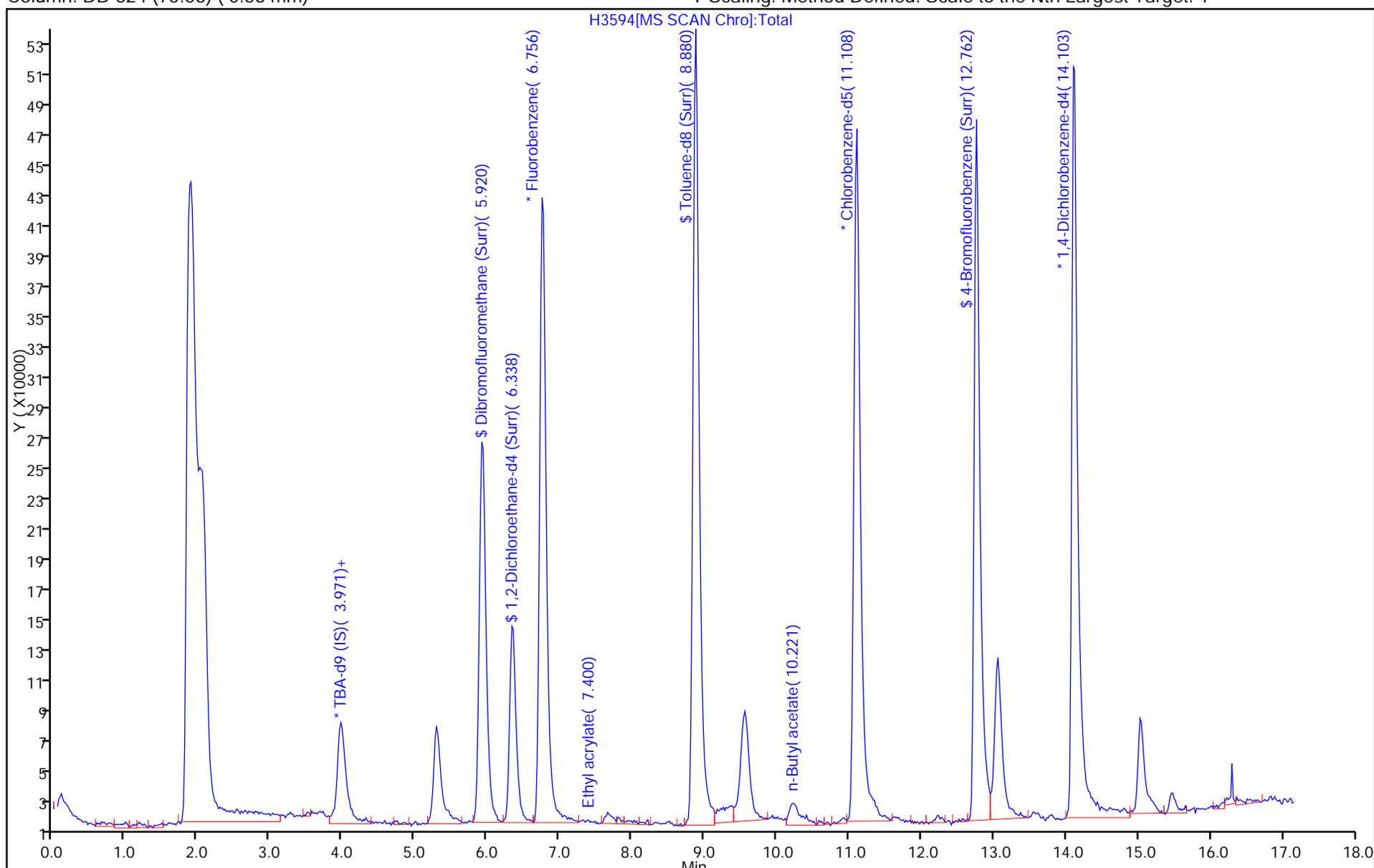
ALS Bottle#: 5

Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 280-281058/4
 Matrix: Water Lab File ID: Z8589.D
 Analysis Method: 8260B Date Collected: _____
 Sample wt/vol: 20 (mL) Date Analyzed: 06/09/2015 19:19
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 281058 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	4.59		1.0	0.80	0.17
71-55-6	1,1,1-Trichloroethane	4.71		1.0	0.40	0.16
79-34-5	1,1,2,2-Tetrachloroethane	4.42		1.0	0.80	0.20
79-00-5	1,1,2-Trichloroethane	4.89		1.0	0.80	0.32
75-34-3	1,1-Dichloroethane	4.41		1.0	0.80	0.16
75-35-4	1,1-Dichloroethene	4.87		1.0	0.80	0.14
563-58-6	1,1-Dichloropropene	4.91		1.0	0.40	0.15
87-61-6	1,2,3-Trichlorobenzene	4.67		1.0	0.80	0.18
96-18-4	1,2,3-Trichloropropane	3.96		3.0	0.80	0.77
120-82-1	1,2,4-Trichlorobenzene	4.79		1.0	0.80	0.32
95-63-6	1,2,4-Trimethylbenzene	4.42		1.0	0.40	0.14
96-12-8	1,2-Dibromo-3-Chloropropane	4.10	J	5.0	1.6	0.81
106-93-4	1,2-Dibromoethane	4.12		1.0	0.40	0.18
95-50-1	1,2-Dichlorobenzene	4.70		1.0	0.40	0.13
107-06-2	1,2-Dichloroethane	4.27		1.0	0.40	0.13
78-87-5	1,2-Dichloropropane	4.22		1.0	0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	4.48		1.0	0.40	0.14
541-73-1	1,3-Dichlorobenzene	4.78		1.0	0.40	0.16
142-28-9	1,3-Dichloropropane	4.15		1.0	0.80	0.15
106-46-7	1,4-Dichlorobenzene	4.71		1.0	0.40	0.16
594-20-7	2,2-Dichloropropane	4.67		1.0	0.40	0.20
78-93-3	2-Butanone (MEK)	17.3		6.0	4.0	1.8
95-49-8	2-Chlorotoluene	4.79	M	1.0	0.40	0.17
591-78-6	2-Hexanone	15.9		5.0	4.0	1.4
106-43-4	4-Chlorotoluene	4.68		1.0	0.80	0.17
108-10-1	4-Methyl-2-pentanone (MIBK)	17.3		5.0	3.2	1.0
67-64-1	Acetone	17.3	M	10	6.4	1.9
71-43-2	Benzene	4.87		1.0	0.40	0.16
108-86-1	Bromobenzene	4.66		1.0	0.40	0.17
74-97-5	Bromochloromethane	5.22		1.0	0.20	0.10
75-27-4	Bromodichloromethane	4.64		1.0	0.40	0.17
75-25-2	Bromoform	4.32		1.0	0.40	0.19
74-83-9	Bromomethane	5.25		2.0	0.80	0.21
75-15-0	Carbon disulfide	4.66		2.0	1.6	0.45
56-23-5	Carbon tetrachloride	4.85		2.0	0.40	0.19
108-90-7	Chlorobenzene	4.68		1.0	0.40	0.17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 280-281058/4
 Matrix: Water Lab File ID: Z8589.D
 Analysis Method: 8260B Date Collected: _____
 Sample wt/vol: 20 (mL) Date Analyzed: 06/09/2015 19:19
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 281058 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
124-48-1	Chlorodibromomethane	4.48		1.0	0.40	0.17
75-00-3	Chloroethane	5.40		2.0	1.6	0.41
67-66-3	Chloroform	4.70		1.0	0.40	0.16
74-87-3	Chloromethane	5.11	M	2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	4.99		1.0	0.40	0.15
10061-01-5	cis-1,3-Dichloropropene	4.23		1.0	0.40	0.16
74-95-3	Dibromomethane	4.62		1.0	0.40	0.17
75-71-8	Dichlorodifluoromethane	5.64		2.0	0.80	0.31
100-41-4	Ethylbenzene	4.49		1.0	0.40	0.16
87-68-3	Hexachlorobutadiene	4.71		1.0	0.80	0.36
98-82-8	Isopropylbenzene	4.52		1.0	0.40	0.19
1634-04-4	Methyl tert-butyl ether	4.76	J	5.0	0.80	0.25
75-09-2	Methylene Chloride	5.30		5.0	0.80	0.32
179601-23-1	m-Xylene & p-Xylene	4.55		2.0	0.80	0.34
91-20-3	Naphthalene	4.80		1.0	0.80	0.22
104-51-8	n-Butylbenzene	4.48		1.0	0.80	0.32
103-65-1	N-Propylbenzene	4.85		1.0	0.40	0.16
95-47-6	o-Xylene	4.61		1.0	0.40	0.19
99-87-6	p-Isopropyltoluene	4.80		1.0	0.40	0.17
135-98-8	sec-Butylbenzene	4.90		1.0	0.40	0.17
100-42-5	Styrene	4.43		1.0	0.40	0.17
75-65-0	tert-Butyl alcohol	52.8		50	32	11
98-06-6	tert-Butylbenzene	4.82		1.0	0.40	0.16
127-18-4	Tetrachloroethene	4.72		1.0	0.40	0.20
108-88-3	Toluene	4.72		1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	5.28		1.0	0.40	0.15
10061-02-6	trans-1,3-Dichloropropene	4.82		1.0	0.40	0.19
79-01-6	Trichloroethene	4.91		1.0	0.40	0.16
75-69-4	Trichlorofluoromethane	4.79		2.0	0.80	0.29
75-01-4	Vinyl chloride	5.15		1.5	0.20	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 280-281058/4
 Matrix: Water Lab File ID: Z8589.D
 Analysis Method: 8260B Date Collected: _____
 Sample wt/vol: 20 (mL) Date Analyzed: 06/09/2015 19:19
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 281058 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		81-118
460-00-4	4-Bromofluorobenzene (Surr)	102		85-114
1868-53-7	Dibromofluoromethane (Surr)	107		80-119
2037-26-5	Toluene-d8 (Surr)	105		89-112

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8589.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 09-Jun-2015 19:19:30 ALS Bottle#: 5 Worklist Smp#: 4
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: lcs
 Operator ID: bergerb Instrument ID: VMS_Z
 Method: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\AQ_VMSZ_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 10-Jun-2015 15:45:19 Calib Date: 02-Jun-2015 01:06:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_Z\20150601-35585.b\Z8233.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK012

First Level Reviewer: bergerb Date: 10-Jun-2015 15:47:44

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.463	3.479	-0.016	87	148361	250.0	250.0	
* 2 Fluorobenzene	96	6.386	6.384	0.002	98	814725	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.032	11.013	0.019	84	211622	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	15.121	15.120	0.001	95	338628	12.5	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.464	5.462	0.002	94	438859	10.5	11.3	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	5.899	5.897	0.002	94	155421	10.5	10.5	
\$ 10 Toluene-d8 (Surr)	98	8.700	8.699	0.001	92	759918	10.5	11.1	
\$ 11 4-Bromofluorobenzene (Surr	95	13.051	13.049	0.002	92	410992	10.5	10.7	
27 Dichlorodifluoromethane	85	1.914	1.913	0.002	98	182079	5.00	5.64	
30 Chloromethane	50	1.984	1.982	0.002	99	108550	5.00	5.11	M
31 Butadiene	54	2.071	2.087	-0.016	89	74008	NC	NC	
32 Vinyl chloride	62	2.106	2.104	0.002	98	114985	5.00	5.15	
35 Bromomethane	94	2.332	2.330	0.002	89	115000	5.00	5.25	
36 Chloroethane	64	2.384	2.382	0.002	98	75201	5.00	5.40	
37 Dichlorofluoromethane	67	2.541	2.539	0.002	97	271432	5.00	5.12	
38 Trichlorofluoromethane	101	2.593	2.591	0.002	100	233454	5.00	4.79	
40 Ethyl ether	59	2.784	2.800	-0.016	89	47701	5.00	4.53	
44 Acrolein	56	2.889	2.904	-0.015	99	28831	50.0	60.7	
45 1,1-Dichloroethene	96	3.028	3.026	0.002	98	107207	5.00	4.87	
48 Acetone	43	3.045	3.026	0.019	28	20677	20.0	17.3	M
46 1,1,2-Trichloro-1,2,2-trif	151	3.080	3.078	0.002	96	162842	5.00	4.82	
49 Iodomethane	142	3.184	3.183	0.001	100	304487	5.00	5.10	
50 Carbon disulfide	76	3.271	3.270	0.001	98	398615	5.00	4.66	
52 3-Chloro-1-propene	41	3.341	3.339	0.002	86	134962	5.00	3.86	
51 Methyl acetate	43	3.341	3.339	0.002	72	102784	25.0	20.3	
54 Methylene Chloride	84	3.463	3.461	0.002	89	103956	5.00	5.30	
55 2-Methyl-2-propanol	59	3.585	3.566	0.019	91	22076	50.0	52.8	
58 Acrylonitrile	53	3.672	3.670	0.002	99	72423	50.0	46.1	
57 trans-1,2-Dichloroethene	96	3.759	3.757	0.002	99	128038	5.00	5.28	
56 Methyl tert-butyl ether	73	3.776	3.774	0.002	74	154611	5.00	4.76	
59 Hexane	57	4.054	4.053	0.001	89	159991	5.00	4.26	
62 1,1-Dichloroethane	63	4.194	4.192	0.002	96	199453	5.00	4.41	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
61 Vinyl acetate	43	4.228	4.209	0.019	96	209537	10.0	9.00	
67 2-Butanone (MEK)	43	4.872	4.853	0.019	42	43673	20.0	17.3	
65 cis-1,2-Dichloroethene	96	4.872	4.871	0.001	82	118996	5.00	4.99	
66 2,2-Dichloropropane	77	4.907	4.888	0.019	87	207956	5.00	4.67	
70 sec-Butyl Alcohol	45	5.099	5.097	0.001	95	65957	150.0	131.5	
71 Chlorobromomethane	128	5.168	5.166	0.002	87	63874	5.00	5.22	
72 Tetrahydrofuran	42	5.273	5.253	0.019	36	17381	10.0	10.9	
74 Chloroform	83	5.255	5.253	0.002	93	198590	5.00	4.70	
75 1,1,1-Trichloroethane	97	5.534	5.549	-0.015	98	187513	5.00	4.71	
76 Cyclohexane	56	5.638	5.636	0.002	89	169479	5.00	4.48	
78 1,1-Dichloropropene	75	5.742	5.741	0.001	98	176048	5.00	4.91	
77 Carbon tetrachloride	117	5.777	5.775	0.002	96	207907	5.00	4.85	
80 Isobutyl alcohol	41	5.847	5.862	-0.015	33	19771	125.0	110.0	
82 1,2-Dichloroethane	62	6.003	6.002	0.001	90	75773	5.00	4.27	
81 Benzene	78	6.003	6.002	0.001	94	305469	5.00	4.87	
84 n-Heptane	43	6.404	6.402	0.002	88	171095	5.00	4.34	
85 Trichloroethene	95	6.908	6.907	0.002	95	142605	5.00	4.91	
89 2-Pentanone	43	7.152	7.133	0.019	99	90569	20.0	15.5	
90 1,2-Dichloropropane	63	7.204	7.202	0.002	96	107556	5.00	4.22	
87 Methylcyclohexane	55	7.221	7.220	0.001	91	147016	5.00	4.48	
92 Dibromomethane	93	7.378	7.376	0.002	93	64777	5.00	4.62	
93 1,4-Dioxane	88	7.413	7.429	-0.016	28	3921	NC	NC	
94 Dichlorobromomethane	83	7.604	7.603	0.001	99	166056	5.00	4.64	
96 2-Chloroethyl vinyl ether	63	8.057	8.055	0.002	92	36397	5.00	4.22	
97 cis-1,3-Dichloropropene	75	8.283	8.264	0.019	98	145950	5.00	4.23	
98 4-Methyl-2-pentanone (MIBK)	43	8.526	8.525	0.001	95	134276	20.0	17.3	
99 Toluene	91	8.805	8.803	0.002	99	335571	5.00	4.72	
100 trans-1,3-Dichloropropene	75	9.135	9.116	0.019	90	105659	5.00	4.82	
101 Ethyl methacrylate	69	9.327	9.325	0.002	84	79868	5.00	3.93	
102 1,1,2-Trichloroethane	97	9.414	9.412	0.002	90	65375	5.00	4.89	
104 1,3-Dichloropropane	76	9.675	9.673	0.002	88	102496	5.00	4.15	
103 Tetrachloroethene	164	9.710	9.708	0.002	97	140428	5.00	4.72	
105 2-Hexanone	43	9.849	9.865	-0.016	94	85116	20.0	15.9	
107 Chlorodibromomethane	129	10.058	10.056	0.002	89	136499	5.00	4.48	
109 Ethylene Dibromide	107	10.232	10.230	0.002	98	86918	5.00	4.12	
111 Chlorobenzene	112	11.067	11.065	0.002	95	262426	5.00	4.68	
110 1-Chlorohexane	91	11.067	11.065	0.002	74	161422	5.00	4.25	
113 1,1,1,2-Tetrachloroethane	131	11.224	11.222	0.002	92	127115	5.00	4.59	
112 Ethylbenzene	106	11.293	11.274	0.019	98	120639	5.00	4.49	
114 m-Xylene & p-Xylene	106	11.485	11.483	0.002	97	164033	5.00	4.55	
115 o-Xylene	106	12.163	12.162	0.001	96	146276	5.00	4.61	
116 Styrene	104	12.181	12.179	0.002	93	229910	5.00	4.43	
117 Bromoform	173	12.459	12.457	0.002	98	75960	5.00	4.32	
118 Isopropylbenzene	105	12.824	12.823	0.001	95	455294	5.00	4.52	
119 Cyclohexanone	55	12.946	12.945	0.001	84	35784	200.0	157.5	
121 Bromobenzene	156	13.312	13.293	0.019	93	119098	5.00	4.66	
122 1,1,2,2-Tetrachloroethane	83	13.329	13.310	0.019	94	83115	5.00	4.42	
124 1,2,3-Trichloropropane	110	13.381	13.362	0.019	81	20475	5.00	3.96	
125 trans-1,4-Dichloro-2-buten	53	13.416	13.414	0.002	84	15627	5.00	4.34	
123 N-Propylbenzene	120	13.555	13.536	0.019	98	125412	5.00	4.85	
126 2-Chlorotoluene	126	13.660	13.658	0.002	79	102978	5.00	4.79	a
128 4-Chlorotoluene	126	13.868	13.849	0.019	97	116829	5.00	4.68	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
127 1,3,5-Trimethylbenzene	105	13.886	13.867	0.019	96	341437	5.00	4.48	
129 tert-Butylbenzene	119	14.443	14.441	0.002	92	406148	5.00	4.82	
130 1,2,4-Trimethylbenzene	105	14.530	14.528	0.002	94	329113	5.00	4.42	
131 sec-Butylbenzene	134	14.843	14.841	0.002	93	108089	5.00	4.90	
132 1,3-Dichlorobenzene	146	14.999	14.998	0.001	97	205955	5.00	4.78	
133 4-Isopropyltoluene	119	15.139	15.120	0.019	96	456485	5.00	4.80	
134 1,4-Dichlorobenzene	146	15.156	15.154	0.002	95	241896	5.00	4.71	
138 1,2-Dichlorobenzene	146	15.800	15.798	0.002	97	177603	5.00	4.70	
137 n-Butylbenzene	91	15.852	15.850	0.002	97	378877	5.00	4.48	
139 1,2-Dibromo-3-Chloropropan	157	16.931	16.929	0.002	92	15019	5.00	4.10	
141 1,2,4-Trichlorobenzene	180	17.871	17.869	0.002	94	133711	5.00	4.79	
142 Hexachlorobutadiene	225	18.062	18.060	0.002	97	121814	5.00	4.71	
143 Naphthalene	128	18.097	18.095	0.002	97	125131	5.00	4.80	
144 1,2,3-Trichlorobenzene	180	18.340	18.339	0.001	96	99960	5.00	4.67	
S 145 1,2-Dichloroethene, Total	1				0		10.0	10.3	
S 146 Xylenes, Total	106				0		10.0	9.15	
S 147 1,2-Dichloroethene, Total	96				0		10.0	10.3	
S 148 1,3-Dichloropropene, Total	1				0		10.0	9.06	
S 149 Trihalomethanes, Total	1				0		20.0	18.1	
S 150 Xylenes, Total (URS)	1				0		10.0	9.15	

QC Flag Legend

Processing Flags

NC - Not Calibrated

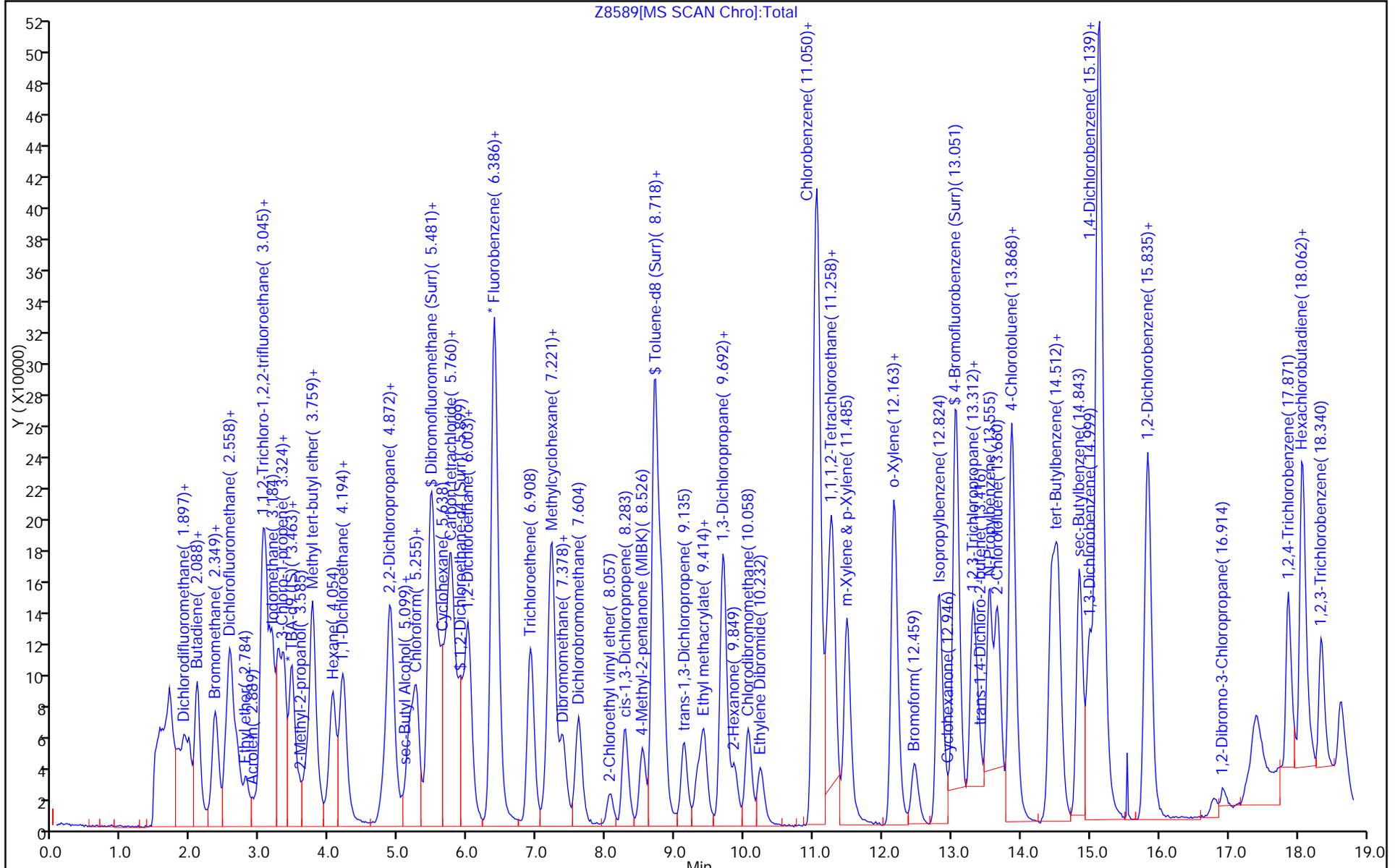
Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MV-Main B_00010	Amount Added: 2.50	Units: uL	
MV-Gas/Ket B_00019	Amount Added: 2.50	Units: uL	
MV-SS 2-Cleve_00021	Amount Added: 2.50	Units: uL	
MV-567649-D_00001	Amount Added: 1.00	Units: uL	Run Reagent
MV-ARCH SS A_00047	Amount Added: 0.84	Units: uL	Run Reagent



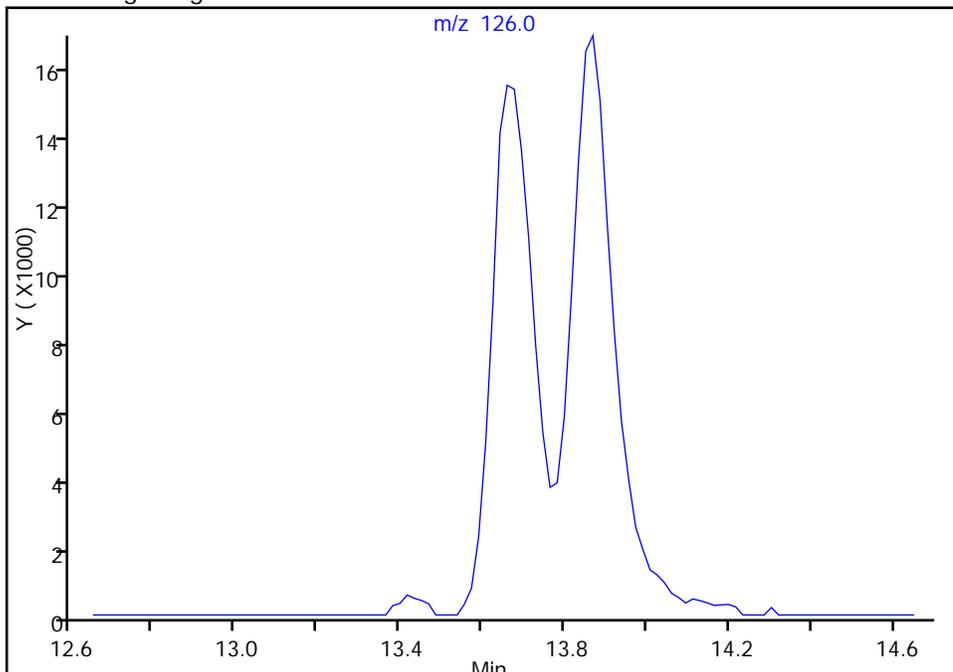
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8589.D
Injection Date: 09-Jun-2015 19:19:30 Instrument ID: VMS_Z
Lims ID: LCS
Client ID:
Operator ID: bergerb ALS Bottle#: 5 Worklist Smp#: 4
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

126 2-Chlorotoluene, CAS: 95-49-8

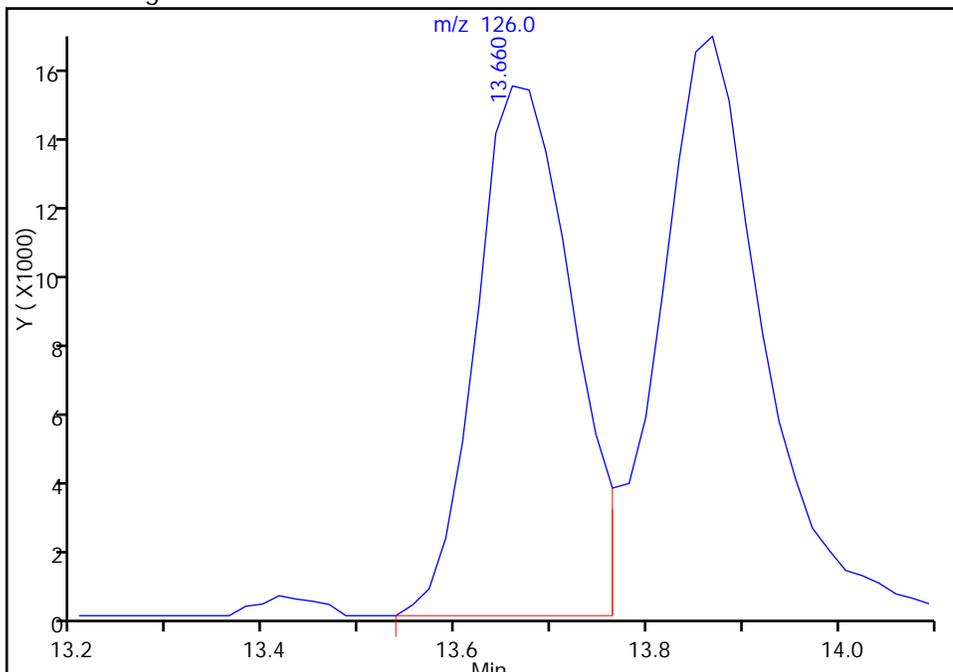
Not Detected
Expected RT: 13.66

Processing Integration Results



RT: 13.66
Area: 102978
Amount: 4.785816
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 09-Jun-2015 19:47:52
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

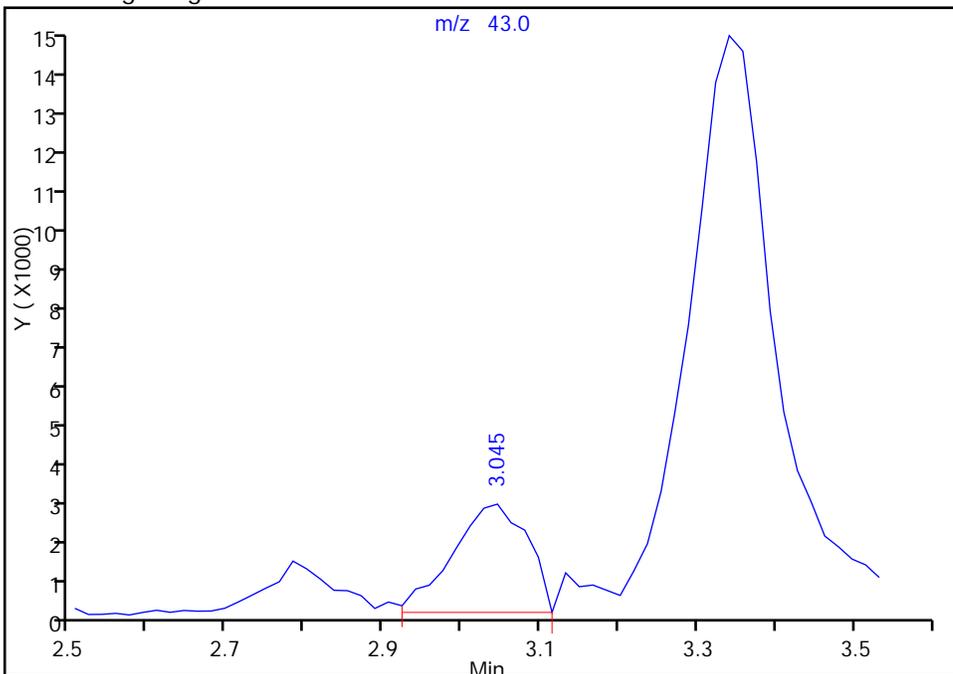
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8589.D
Injection Date: 09-Jun-2015 19:19:30 Instrument ID: VMS_Z
Lims ID: LCS
Client ID:
Operator ID: bergerb ALS Bottle#: 5 Worklist Smp#: 4
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

48 Acetone, CAS: 67-64-1

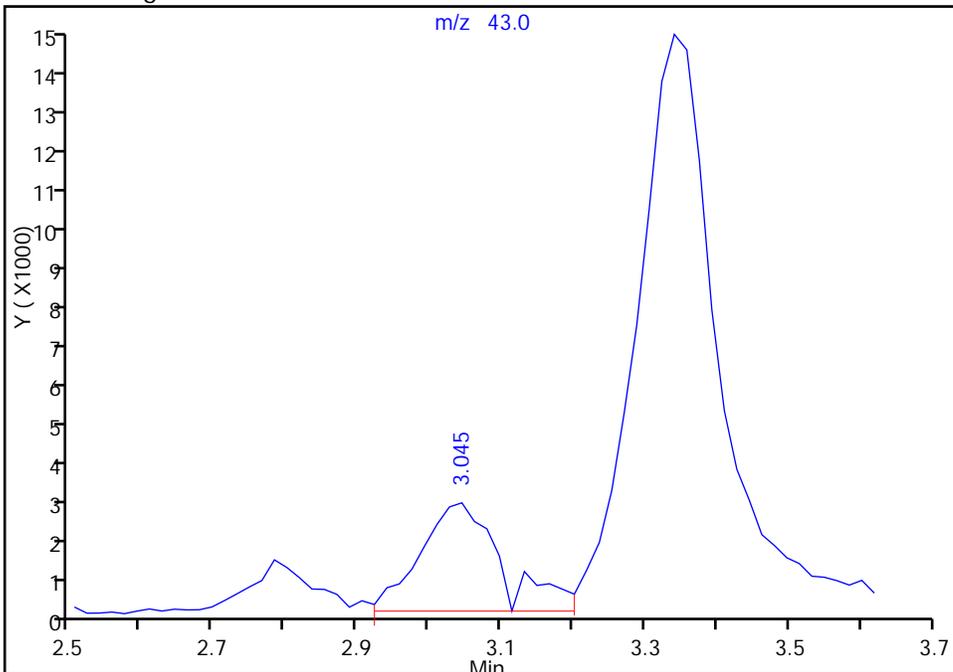
RT: 3.05
Area: 17363
Amount: 14.523397
Amount Units: ug/l

Processing Integration Results



RT: 3.05
Area: 20677
Amount: 17.295415
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 09-Jun-2015 19:47:52
Audit Action: Split an Integrated Peak
Audit Reason: Split Peak

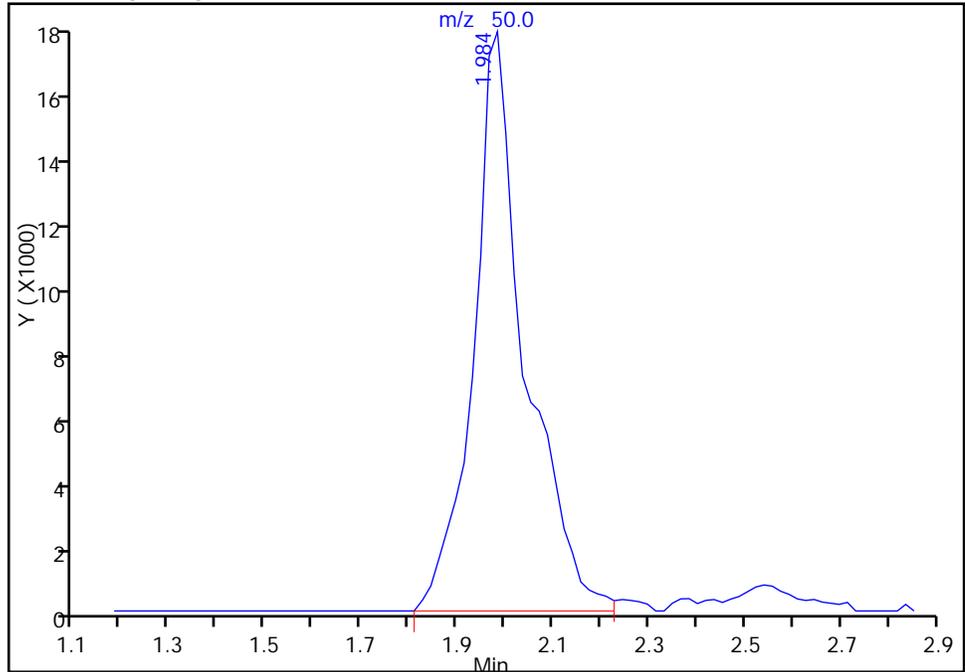
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_Z\20150609-35874.b\Z8589.D
Injection Date: 09-Jun-2015 19:19:30 Instrument ID: VMS_Z
Lims ID: LCS
Client ID:
Operator ID: bergerb ALS Bottle#: 5 Worklist Smp#: 4
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSZ_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

30 Chloromethane, CAS: 74-87-3

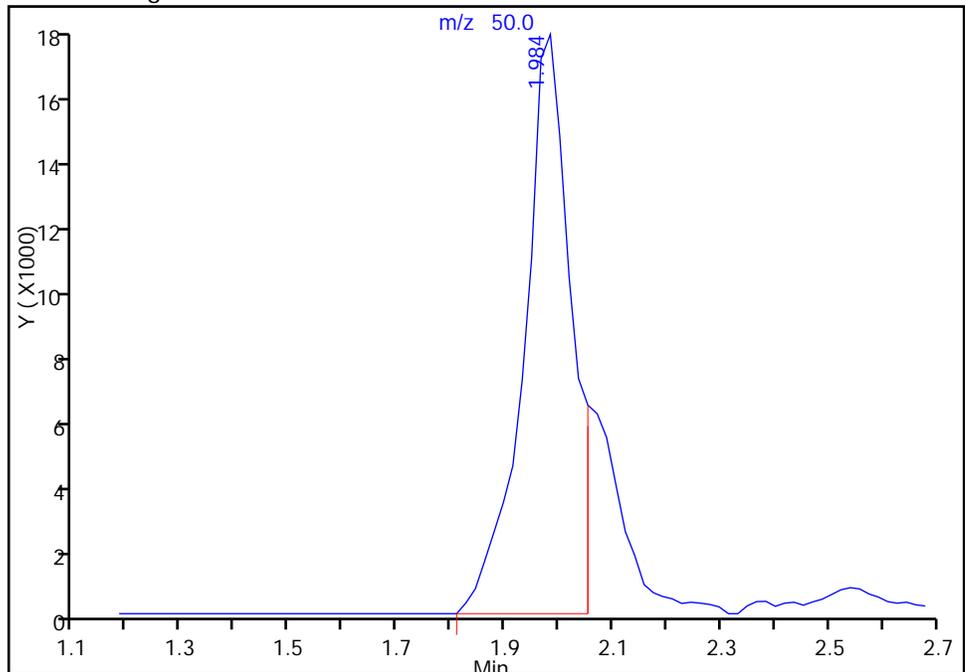
RT: 1.98
Area: 132008
Amount: 6.146699
Amount Units: ug/l

Processing Integration Results



RT: 1.98
Area: 108550
Amount: 5.109372
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 09-Jun-2015 19:47:52
Audit Action: Split an Integrated Peak
Audit Reason: Shouldering

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 280-281475/4
 Matrix: Water Lab File ID: H3592.D
 Analysis Method: 8260B Date Collected: _____
 Sample wt/vol: 20 (mL) Date Analyzed: 06/11/2015 19:50
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 281475 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	4.18		1.0	0.80	0.17
71-55-6	1,1,1-Trichloroethane	4.41		1.0	0.40	0.16
79-34-5	1,1,2,2-Tetrachloroethane	4.15		1.0	0.80	0.20
79-00-5	1,1,2-Trichloroethane	4.31		1.0	0.80	0.32
75-34-3	1,1-Dichloroethane	4.43		1.0	0.80	0.16
75-35-4	1,1-Dichloroethene	4.28		1.0	0.80	0.14
563-58-6	1,1-Dichloropropene	4.54		1.0	0.40	0.15
87-61-6	1,2,3-Trichlorobenzene	4.20		1.0	0.80	0.18
96-18-4	1,2,3-Trichloropropane	4.09		3.0	0.80	0.77
120-82-1	1,2,4-Trichlorobenzene	4.18		1.0	0.80	0.32
95-63-6	1,2,4-Trimethylbenzene	4.04		1.0	0.40	0.14
96-12-8	1,2-Dibromo-3-Chloropropane	4.30	J	5.0	1.6	0.81
106-93-4	1,2-Dibromoethane	4.22		1.0	0.40	0.18
95-50-1	1,2-Dichlorobenzene	4.11		1.0	0.40	0.13
107-06-2	1,2-Dichloroethane	4.57		1.0	0.40	0.13
78-87-5	1,2-Dichloropropane	4.35		1.0	0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	4.05		1.0	0.40	0.14
541-73-1	1,3-Dichlorobenzene	4.00		1.0	0.40	0.16
142-28-9	1,3-Dichloropropane	4.26		1.0	0.80	0.15
106-46-7	1,4-Dichlorobenzene	4.17		1.0	0.40	0.16
594-20-7	2,2-Dichloropropane	4.37		1.0	0.40	0.20
78-93-3	2-Butanone (MEK)	22.5		6.0	4.0	1.8
95-49-8	2-Chlorotoluene	4.06		1.0	0.40	0.17
591-78-6	2-Hexanone	20.1		5.0	4.0	1.4
106-43-4	4-Chlorotoluene	4.10		1.0	0.80	0.17
108-10-1	4-Methyl-2-pentanone (MIBK)	22.5		5.0	3.2	1.0
67-64-1	Acetone	20.2		10	6.4	1.9
71-43-2	Benzene	4.47		1.0	0.40	0.16
108-86-1	Bromobenzene	4.22		1.0	0.40	0.17
74-97-5	Bromochloromethane	4.49		1.0	0.20	0.10
75-27-4	Bromodichloromethane	4.37		1.0	0.40	0.17
75-25-2	Bromoform	4.35		1.0	0.40	0.19
74-83-9	Bromomethane	5.42		2.0	0.80	0.21
75-15-0	Carbon disulfide	4.06		2.0	1.6	0.45
56-23-5	Carbon tetrachloride	4.56		2.0	0.40	0.19
108-90-7	Chlorobenzene	4.17		1.0	0.40	0.17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 280-281475/4
 Matrix: Water Lab File ID: H3592.D
 Analysis Method: 8260B Date Collected: _____
 Sample wt/vol: 20 (mL) Date Analyzed: 06/11/2015 19:50
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 281475 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
124-48-1	Chlorodibromomethane	4.28		1.0	0.40	0.17
75-00-3	Chloroethane	5.54		2.0	1.6	0.41
67-66-3	Chloroform	4.50		1.0	0.40	0.16
74-87-3	Chloromethane	5.09		2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	4.52		1.0	0.40	0.15
10061-01-5	cis-1,3-Dichloropropene	4.41		1.0	0.40	0.16
74-95-3	Dibromomethane	4.42		1.0	0.40	0.17
75-71-8	Dichlorodifluoromethane	5.72		2.0	0.80	0.31
100-41-4	Ethylbenzene	4.18		1.0	0.40	0.16
87-68-3	Hexachlorobutadiene	4.09		1.0	0.80	0.36
98-82-8	Isopropylbenzene	4.09		1.0	0.40	0.19
1634-04-4	Methyl tert-butyl ether	4.57	J	5.0	0.80	0.25
75-09-2	Methylene Chloride	4.76	J	5.0	0.80	0.32
179601-23-1	m-Xylene & p-Xylene	4.05		2.0	0.80	0.34
91-20-3	Naphthalene	4.18		1.0	0.80	0.22
104-51-8	n-Butylbenzene	3.96		1.0	0.80	0.32
103-65-1	N-Propylbenzene	4.07		1.0	0.40	0.16
95-47-6	o-Xylene	4.17		1.0	0.40	0.19
99-87-6	p-Isopropyltoluene	4.06		1.0	0.40	0.17
135-98-8	sec-Butylbenzene	4.04		1.0	0.40	0.17
100-42-5	Styrene	4.11		1.0	0.40	0.17
75-65-0	tert-Butyl alcohol	43.6	J	50	32	11
98-06-6	tert-Butylbenzene	3.99		1.0	0.40	0.16
127-18-4	Tetrachloroethene	4.20		1.0	0.40	0.20
108-88-3	Toluene	4.46		1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	4.45		1.0	0.40	0.15
10061-02-6	trans-1,3-Dichloropropene	4.74		1.0	0.40	0.19
79-01-6	Trichloroethene	4.56		1.0	0.40	0.16
75-69-4	Trichlorofluoromethane	5.64		2.0	0.80	0.29
75-01-4	Vinyl chloride	5.31		1.5	0.20	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 280-281475/4
 Matrix: Water Lab File ID: H3592.D
 Analysis Method: 8260B Date Collected: _____
 Sample wt/vol: 20 (mL) Date Analyzed: 06/11/2015 19:50
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 281475 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		81-118
460-00-4	4-Bromofluorobenzene (Surr)	101		85-114
1868-53-7	Dibromofluoromethane (Surr)	107		80-119
2037-26-5	Toluene-d8 (Surr)	106		89-112

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150611-35960.b\H3592.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 11-Jun-2015 19:50:30 ALS Bottle#: 3 Worklist Smp#: 4
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: LCS
 Operator ID: bergerb Instrument ID: VMS_H
 Method: \\Denchrom\ChromData\VMS_H\20150611-35960.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 12-Jun-2015 11:40:30 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: RT Order ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK002

First Level Reviewer: bergerb

Date: 12-Jun-2015 11:42:19

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.971	3.987	-0.016	60	247402	250.0	250.0	
* 2 Fluorobenzene	96	6.756	6.772	-0.016	94	1145067	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.109	11.107	0.002	92	269029	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.120	14.119	0.001	96	450105	12.5	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.921	5.937	-0.016	53	526341	8.50	9.10	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	6.338	6.355	-0.017	40	290369	8.50	9.06	
\$ 10 Toluene-d8 (Surr)	98	8.880	8.879	0.001	92	1177773	8.50	8.97	
\$ 11 4-Bromofluorobenzene (Surr	95	12.762	12.761	0.001	77	663706	8.50	8.62	
28 Dichlorodifluoromethane	85	2.160	2.176	-0.016	98	313350	5.00	5.72	
30 Chloromethane	50	2.265	2.263	0.001	88	181311	5.00	5.09	
31 Butadiene	54	2.386	2.385	0.001	0	142372	NC	NC	
32 Vinyl chloride	62	2.386	2.403	-0.017	89	185067	5.00	5.31	
35 Bromomethane	94	2.682	2.681	0.001	88	156765	5.00	5.42	
36 Chloroethane	64	2.752	2.751	0.001	87	117524	5.00	5.54	
37 Dichlorofluoromethane	67	2.926	2.942	-0.016	97	441743	5.00	5.75	
38 Trichlorofluoromethane	101	2.996	2.995	0.001	98	388221	5.00	5.64	
40 Ethyl ether	59	3.222	3.221	0.001	89	84620	5.00	4.66	
44 Acrolein	56	3.361	3.378	-0.017	85	41974	50.0	33.5	
45 1,1-Dichloroethene	96	3.483	3.482	0.001	94	146279	5.00	4.28	
47 Acetone	43	3.518	3.517	0.001	28	72014	20.0	20.2	
46 1,1,2-Trichloro-1,2,2-trif	151	3.501	3.517	-0.016	95	194593	5.00	4.18	
48 Iodomethane	142	3.657	3.656	0.001	98	341275	5.00	4.43	
50 Carbon disulfide	76	3.727	3.726	0.001	98	535643	5.00	4.06	
52 3-Chloro-1-propene	41	3.814	3.830	-0.016	84	306956	5.00	3.87	
53 Methyl acetate	43	3.831	3.830	0.001	77	269270	25.0	23.3	
54 Methylene Chloride	84	3.953	3.952	0.001	91	151482	5.00	4.76	
55 2-Methyl-2-propanol	59	4.075	4.074	0.001	6	55372	50.0	43.6	
57 Acrylonitrile	53	4.197	4.213	-0.016	76	133694	50.0	44.8	
56 Methyl tert-butyl ether	73	4.232	4.248	-0.016	2	297790	5.00	4.57	
58 trans-1,2-Dichloroethene	96	4.232	4.248	-0.016	91	171244	5.00	4.45	
59 Hexane	57	4.510	4.509	0.001	85	292615	5.00	4.06	
60 1,1-Dichloroethane	63	4.684	4.701	-0.017	94	359671	5.00	4.43	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
61 Vinyl acetate	43	4.719	4.718	0.001	90	549150	10.0	10.9	
67 2-Butanone (MEK)	43	5.363	5.362	0.001	52	148030	20.0	22.5	
65 cis-1,2-Dichloroethene	96	5.363	5.362	0.001	78	175320	5.00	4.52	
66 2,2-Dichloropropane	77	5.381	5.380	0.001	70	344615	5.00	4.37	
71 sec-Butyl Alcohol	45	5.590	5.589	0.001	75	203537	150.0	114.9	
73 Chlorobromomethane	128	5.642	5.658	-0.016	65	76454	5.00	4.49	
74 Tetrahydrofuran	42	5.712	5.710	0.002	35	42790	10.0	9.05	
75 Chloroform	83	5.729	5.728	0.001	93	341036	5.00	4.50	
76 1,1,1-Trichloroethane	97	5.973	5.989	-0.016	88	319134	5.00	4.41	
77 Cyclohexane	56	6.042	6.059	-0.017	79	339424	5.00	4.25	
78 1,1-Dichloropropene	75	6.164	6.163	0.001	79	294867	5.00	4.54	
79 Carbon tetrachloride	117	6.182	6.180	0.002	75	307402	5.00	4.56	
80 Isobutyl alcohol	41	6.286	6.302	-0.016	58	71045	125.0	114.5	
81 Benzene	78	6.425	6.424	0.001	91	535939	5.00	4.47	
82 1,2-Dichloroethane	62	6.443	6.442	0.001	44	165748	5.00	4.57	
84 n-Heptane	43	6.721	6.720	0.001	82	458583	5.00	4.32	
86 Trichloroethene	95	7.244	7.242	0.002	93	222438	5.00	4.56	
88 2-Pentanone	43	7.453	7.469	-0.016	84	322523	20.0	17.7	
89 Methylcyclohexane	55	7.505	7.504	0.001	82	308301	5.00	4.33	
90 1,2-Dichloropropane	63	7.540	7.538	0.002	80	208688	5.00	4.35	
92 Dibromomethane	93	7.696	7.695	0.001	84	105589	5.00	4.42	
93 1,4-Dioxane	88	7.714	7.730	-0.016	1	12403	100.0	98.2	
94 Dichlorobromomethane	83	7.888	7.904	-0.016	94	304868	5.00	4.37	
96 2-Chloroethyl vinyl ether	63	8.288	8.304	-0.016	73	46744	5.00	5.46	
97 cis-1,3-Dichloropropene	75	8.497	8.496	0.001	74	279687	5.00	4.41	
98 4-Methyl-2-pentanone (MIBK)	43	8.723	8.722	0.001	92	546919	20.0	22.5	
99 Toluene	91	8.967	8.983	-0.016	95	613203	5.00	4.46	
100 trans-1,3-Dichloropropene	75	9.281	9.279	0.002	92	207937	5.00	4.74	
101 Ethyl methacrylate	69	9.420	9.419	0.001	74	169893	5.00	4.37	
102 1,1,2-Trichloroethane	97	9.542	9.558	-0.016	70	118885	5.00	4.31	
103 Tetrachloroethene	164	9.768	9.767	0.001	93	183801	5.00	4.20	
104 1,3-Dichloropropane	76	9.785	9.802	-0.017	93	210326	5.00	4.26	
105 2-Hexanone	43	9.925	9.924	0.001	94	354535	20.0	20.1	
108 Chlorodibromomethane	129	10.151	10.150	0.001	90	205600	5.00	4.28	
109 Ethylene Dibromide	107	10.343	10.341	0.002	92	142862	5.00	4.22	
110 1-Chlorohexane	91	11.109	11.125	-0.016	63	308424	5.00	4.17	
111 Chlorobenzene	112	11.143	11.160	-0.017	81	402187	5.00	4.17	
112 1,1,1,2-Tetrachloroethane	131	11.283	11.281	0.002	69	194837	5.00	4.18	
113 Ethylbenzene	106	11.317	11.334	-0.017	82	205701	5.00	4.18	
114 m-Xylene & p-Xylene	106	11.509	11.508	0.001	98	270861	5.00	4.05	
115 o-Xylene	106	12.066	12.082	-0.016	91	244646	5.00	4.17	
116 Styrene	104	12.101	12.100	0.001	84	389444	5.00	4.11	
117 Bromoform	173	12.345	12.343	0.002	94	112793	5.00	4.35	
118 Isopropylbenzene	105	12.571	12.570	0.001	90	788662	5.00	4.09	
120 Cyclohexanone	55	12.693	12.692	0.001	67	128030	200.0	215.8	
122 Bromobenzene	156	12.954	12.953	0.001	94	187851	5.00	4.22	
121 1,1,2,2-Tetrachloroethane	83	12.954	12.953	0.001	51	166712	5.00	4.15	
123 1,2,3-Trichloropropane	110	13.006	13.005	0.001	74	38398	5.00	4.09	
124 trans-1,4-Dichloro-2-buten	53	13.024	13.022	0.002	50	41830	5.00	3.97	
125 N-Propylbenzene	120	13.076	13.092	-0.016	86	191999	5.00	4.07	
126 2-Chlorotoluene	126	13.180	13.179	0.001	16	148693	5.00	4.06	
127 1,3,5-Trimethylbenzene	105	13.302	13.301	0.001	73	590731	5.00	4.05	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
128 4-Chlorotoluene	126	13.320	13.318	0.002	89	193697	5.00	4.10	
129 tert-Butylbenzene	119	13.668	13.684	-0.016	92	630743	5.00	3.99	
130 1,2,4-Trimethylbenzene	105	13.720	13.736	-0.016	89	559769	5.00	4.04	
131 sec-Butylbenzene	134	13.912	13.928	-0.016	73	168681	5.00	4.04	
132 1,3-Dichlorobenzene	146	14.033	14.050	-0.017	64	270563	5.00	4.00	
133 4-Isopropyltoluene	119	14.086	14.084	0.002	88	728633	5.00	4.06	
134 1,4-Dichlorobenzene	146	14.138	14.137	0.001	67	434812	5.00	4.17	
137 n-Butylbenzene	91	14.503	14.520	-0.017	98	747902	5.00	3.96	
138 1,2-Dichlorobenzene	146	14.538	14.537	0.001	74	291569	5.00	4.11	
139 1,2-Dibromo-3-Chloropropan	157	15.304	15.303	0.001	61	28488	5.00	4.30	
141 1,2,4-Trichlorobenzene	180	16.070	16.087	-0.017	93	198995	5.00	4.18	
142 Hexachlorobutadiene	225	16.227	16.226	0.001	89	202917	5.00	4.09	
143 Naphthalene	128	16.297	16.313	-0.016	95	226598	5.00	4.18	
144 1,2,3-Trichlorobenzene	180	16.523	16.539	-0.016	94	157679	5.00	4.20	
S 151 1,2-Dichloroethene, Total	96				0		10.0	8.97	
S 149 1,2-Dichloroethene, Total	1				0		10.0	8.97	
S 150 Xylenes, Total	106				0		10.0	8.22	
S 148 1,3-Dichloropropene, Total	1				0		10.0	9.15	
S 145 Trihalomethanes, Total	1				0		20.0	17.5	
S 146 Xylenes, Total (URS)	1				0		10.0	8.22	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

MV-Main B_00010	Amount Added: 2.50	Units: uL	
MV-Gas/Ket B_00017	Amount Added: 2.50	Units: uL	
MV-SS 2-Cleve_00021	Amount Added: 2.50	Units: uL	
MV-568718-D_00002	Amount Added: 1.00	Units: uL	Run Reagent
MV-ARCH SS A_00042	Amount Added: 0.68	Units: uL	Run Reagent

Data File: \\Denchrom\ChromData\VMS_H\20150611-35960.b\H3592.D

Injection Date: 11-Jun-2015 19:50:30

Instrument ID: VMS_H

Operator ID: bergerb

Lims ID: LCS

Worklist Smp#: 4

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

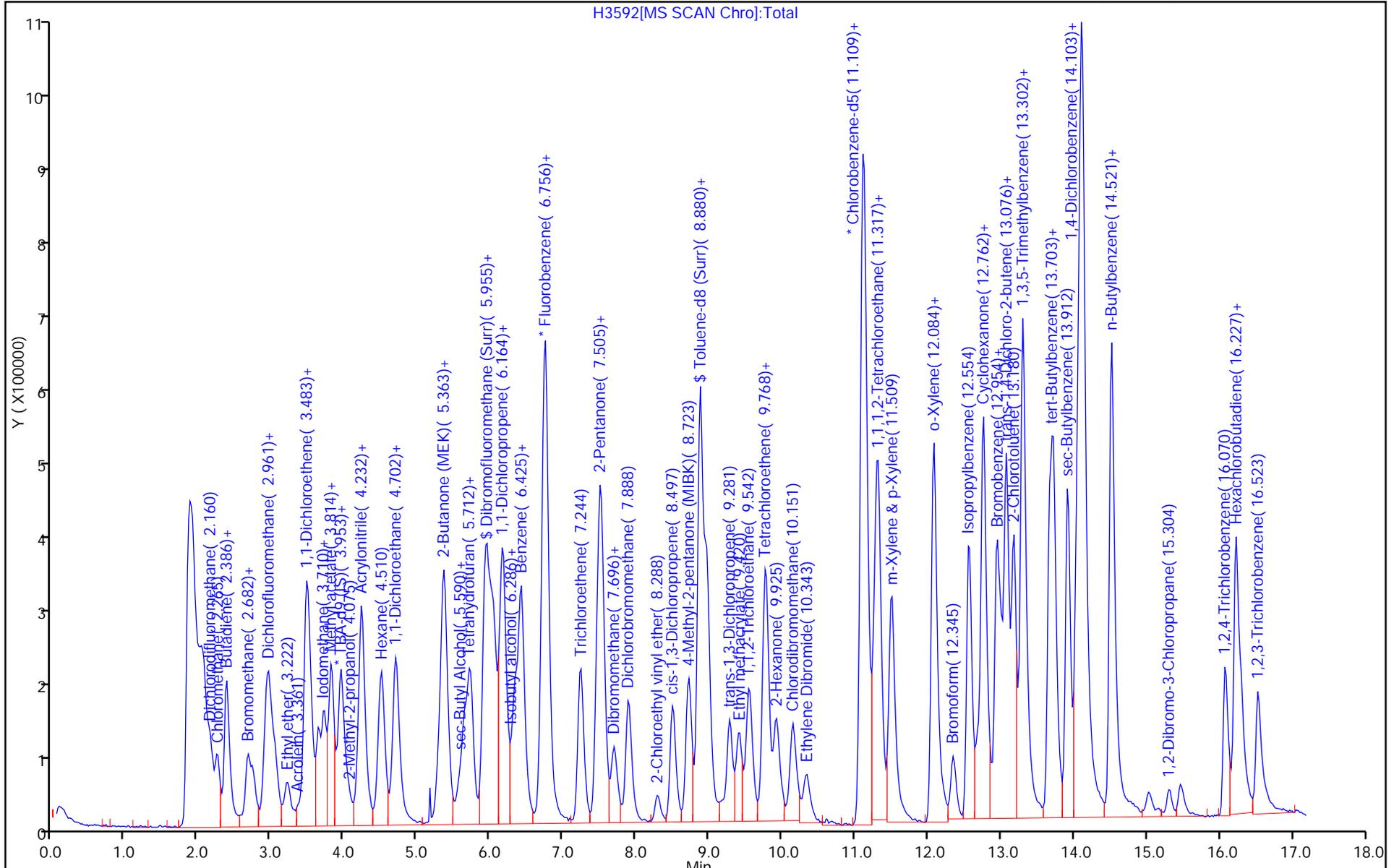
ALS Bottle#: 3

Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica DenverJob No.: 280-70279-1

SDG No.: _____

Instrument ID: VMS_HStart Date: 05/27/2015 23:12Analysis Batch Number: 279265End Date: 05/28/2015 05:32

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 280-279265/1		05/27/2015 23:12	1	H2946.D	DB-624 (75.53) 0.53 (mm)
IC 280-279265/9		05/28/2015 00:18	1	H2949.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/28/2015 00:18	1		DB-624 (75.53) 0.53 (mm)
IC 280-279265/10		05/28/2015 00:40	1	H2950.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/28/2015 00:40	1		DB-624 (75.53) 0.53 (mm)
IC 280-279265/11		05/28/2015 01:03	1	H2951.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/28/2015 01:03	1		DB-624 (75.53) 0.53 (mm)
IC 280-279265/12		05/28/2015 01:25	1	H2952.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/28/2015 01:25	1		DB-624 (75.53) 0.53 (mm)
IC 280-279265/13		05/28/2015 01:48	1	H2953.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/28/2015 01:48	1		DB-624 (75.53) 0.53 (mm)
IC 280-279265/14		05/28/2015 02:10	1	H2954.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/28/2015 02:10	1		DB-624 (75.53) 0.53 (mm)
IC 280-279265/15		05/28/2015 02:33	1	H2955.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/28/2015 02:33	1		DB-624 (75.53) 0.53 (mm)
ICV 280-279265/22		05/28/2015 02:55	1	H2956.D	DB-624 (75.53) 0.53 (mm)
IC 280-279265/16		05/28/2015 03:18	1	H2957.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/28/2015 03:18	1		DB-624 (75.53) 0.53 (mm)
IC 280-279265/17		05/28/2015 03:40	1	H2958.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/28/2015 03:40	1		DB-624 (75.53) 0.53 (mm)
IC 280-279265/18		05/28/2015 04:03	1	H2959.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/28/2015 04:03	1		DB-624 (75.53) 0.53 (mm)
ICIS 280-279265/19		05/28/2015 04:25	1	H2960.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/28/2015 04:25	1		DB-624 (75.53) 0.53 (mm)
IC 280-279265/20		05/28/2015 04:48	1	H2961.D	DB-624 (75.53) 0.53 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Instrument ID: VMS_H Start Date: 05/27/2015 23:12

Analysis Batch Number: 279265 End Date: 05/28/2015 05:32

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		05/28/2015 04:48	1		DB-624 (75.53) 0.53 (mm)
IC 280-279265/21		05/28/2015 05:10	1	H2962.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/28/2015 05:10	1		DB-624 (75.53) 0.53 (mm)
ICV 280-279265/23		05/28/2015 05:32	1	H2963.D	DB-624 (75.53) 0.53 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Instrument ID: VMS_H Start Date: 06/11/2015 18:47Analysis Batch Number: 281475 End Date: 06/12/2015 06:08

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 280-281475/1		06/11/2015 18:47	1	H3589.D	DB-624 (75.53) 0.53 (mm)
CCV 280-281475/2		06/11/2015 19:03	1	H3590.D	DB-624 (75.53) 0.53 (mm)
CCV 280-281475/3		06/11/2015 19:25	1	H3591.D	DB-624 (75.53) 0.53 (mm)
LCS 280-281475/4		06/11/2015 19:50	1	H3592.D	DB-624 (75.53) 0.53 (mm)
MB 280-281475/6		06/11/2015 20:35	1	H3594.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/11/2015 20:57	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/11/2015 21:27	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/11/2015 21:50	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/11/2015 22:13	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/11/2015 22:35	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/11/2015 22:58	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/11/2015 23:21	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/11/2015 23:43	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/12/2015 00:06	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/12/2015 00:29	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/12/2015 00:51	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/12/2015 01:14	4		DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/12/2015 01:37	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/12/2015 01:59	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/12/2015 02:22	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/12/2015 02:45	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/12/2015 03:07	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/12/2015 03:30	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/12/2015 03:52	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/12/2015 04:15	1		DB-624 (75.53) 0.53 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Instrument ID: VMS_H Start Date: 06/11/2015 18:47

Analysis Batch Number: 281475 End Date: 06/12/2015 06:08

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		06/12/2015 04:37	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/12/2015 05:00	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/12/2015 05:23	1		DB-624 (75.53) 0.53 (mm)
280-70279-1	54403-TB19-0615	06/12/2015 05:45	1	H3618.D	DB-624 (75.53) 0.53 (mm)
CCVC 280-281475/33		06/12/2015 06:08	1	H3619.D	DB-624 (75.53) 0.53 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Instrument ID: VMS_Z Start Date: 06/01/2015 19:09Analysis Batch Number: 279871 End Date: 06/02/2015 05:38

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 280-279871/1		06/01/2015 19:09	1	Z8218.D	DB-624 (75.53) 0.53 (mm)
IC 280-279871/9		06/01/2015 19:51	1	Z8220.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/01/2015 19:51	1		DB-624 (75.53) 0.53 (mm)
IC 280-279871/10		06/01/2015 20:14	1	Z8221.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/01/2015 20:14	1		DB-624 (75.53) 0.53 (mm)
IC 280-279871/11		06/01/2015 20:36	1	Z8222.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/01/2015 20:36	1		DB-624 (75.53) 0.53 (mm)
IC 280-279871/12		06/01/2015 20:59	1	Z8223.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/01/2015 20:59	1		DB-624 (75.53) 0.53 (mm)
IC 280-279871/13		06/01/2015 21:22	1	Z8224.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/01/2015 21:22	1		DB-624 (75.53) 0.53 (mm)
IC 280-279871/14		06/01/2015 21:45	1	Z8225.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/01/2015 21:45	1		DB-624 (75.53) 0.53 (mm)
IC 280-279871/15		06/01/2015 22:07	1	Z8226.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/01/2015 22:07	1		DB-624 (75.53) 0.53 (mm)
ICV 280-279871/22		06/01/2015 22:30	1	Z8227.D	DB-624 (75.53) 0.53 (mm)
IC 280-279871/16		06/01/2015 23:13	1	Z8228.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/01/2015 23:13	1		DB-624 (75.53) 0.53 (mm)
IC 280-279871/17		06/01/2015 23:35	1	Z8229.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/01/2015 23:35	1		DB-624 (75.53) 0.53 (mm)
IC 280-279871/18		06/01/2015 23:58	1	Z8230.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/01/2015 23:58	1		DB-624 (75.53) 0.53 (mm)
ICIS 280-279871/19		06/02/2015 00:21	1	Z8231.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/02/2015 00:21	1		DB-624 (75.53) 0.53 (mm)
IC 280-279871/20		06/02/2015 00:43	1	Z8232.D	DB-624 (75.53) 0.53 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Instrument ID: VMS_Z Start Date: 06/01/2015 19:09Analysis Batch Number: 279871 End Date: 06/02/2015 05:38

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		06/02/2015 00:43	1		DB-624 (75.53) 0.53 (mm)
IC 280-279871/21		06/02/2015 01:06	1	Z8233.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/02/2015 01:06	1		DB-624 (75.53) 0.53 (mm)
ICV 280-279871/23		06/02/2015 01:29	1	Z8234.D	DB-624 (75.53) 0.53 (mm)
ICV 280-279871/24		06/02/2015 01:51	1	Z8235.D	DB-624 (75.53) 0.53 (mm)
MDLV 280-279871/25		06/02/2015 02:14	1		DB-624 (75.53) 0.53 (mm)
MDLV 280-279871/26		06/02/2015 02:37	1		DB-624 (75.53) 0.53 (mm)
MDLV 280-279871/27		06/02/2015 03:00	1		DB-624 (75.53) 0.53 (mm)
MDLV 280-279871/28		06/02/2015 03:22	1		DB-624 (75.53) 0.53 (mm)
MDLV 280-279871/29		06/02/2015 03:44	1		DB-624 (75.53) 0.53 (mm)
280-70205-A-7 MDLV		06/02/2015 04:07	1		DB-624 (75.53) 0.53 (mm)
280-70205-A-8 MDLV		06/02/2015 04:30	1		DB-624 (75.53) 0.53 (mm)
280-70205-A-9 MDLV		06/02/2015 04:53	1		DB-624 (75.53) 0.53 (mm)
280-70205-A-10 MDLV		06/02/2015 05:15	1		DB-624 (75.53) 0.53 (mm)
MDLV 280-279871/34		06/02/2015 05:38	1		DB-624 (75.53) 0.53 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Instrument ID: VMS_Z Start Date: 06/09/2015 17:29Analysis Batch Number: 281058 End Date: 06/10/2015 01:28

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 280-281058/1		06/09/2015 17:29	1	Z8584.D	DB-624 (75.53) 0.53 (mm)
CCV 280-281058/2		06/09/2015 17:45	1	Z8585.D	DB-624 (75.53) 0.53 (mm)
CCV 280-281058/3		06/09/2015 18:08	1	Z8586.D	DB-624 (75.53) 0.53 (mm)
MB 280-281058/6		06/09/2015 18:56	1	Z8588.D	DB-624 (75.53) 0.53 (mm)
LCS 280-281058/4		06/09/2015 19:19	1	Z8589.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/09/2015 20:05	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/09/2015 20:28	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/09/2015 20:57	1		DB-624 (75.53) 0.53 (mm)
280-70279-2	54402-EB18-0615	06/09/2015 21:19	1	Z8594.D	DB-624 (75.53) 0.53 (mm)
280-70279-3	54400-MW43-0615	06/09/2015 21:42	1	Z8595.D	DB-624 (75.53) 0.53 (mm)
280-70279-4	54400-MW56-0615	06/09/2015 22:05	1	Z8596.D	DB-624 (75.53) 0.53 (mm)
280-70279-5	54400-MW55S-0615	06/09/2015 22:27	1	Z8597.D	DB-624 (75.53) 0.53 (mm)
280-70279-6	54400-MW55D-0615	06/09/2015 22:50	1	Z8598.D	DB-624 (75.53) 0.53 (mm)
CCVC 280-281058/17		06/09/2015 23:13	1	Z8599.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/09/2015 23:35	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/09/2015 23:58	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/10/2015 00:21	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/10/2015 00:43	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/10/2015 01:06	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		06/10/2015 01:28	1		DB-624 (75.53) 0.53 (mm)

GC/MS VOA Continuing Calibration Review Checklist

TestAmerica Denver

Instrument ID and Date: Z 06/09/15 pm Work List 35874

Check Method Used: Analysis 624 8260B Other VOA _____

VOA Preparation 5mL 20mL 5035 Low 5035 High 5030 Low 5030 High

Review Items	Level 1			Level 2	Comments
	Yes	No	N/A		
Continuing Calibration					
1. BFB meets criteria?	/			/	
2. ICAL date and instrument ID verified?	/			/	
3. Do SPCC RRFs and CCC %Ds meet method criteria?	/			/	
4. Does %D meet criteria for non-CCC compounds?	/			/	
5. Isomeric pairs checked for correct peak assignment? Vinyl acetate/Isopropyl ether 1,3-/1,4-/1,2-Dichlorobenzene Ethylbenzene/Xylenes 1,3,5-/1,2,4-Trimethylbenzene / isopropylbenzene 2-Nitropropane between Bromodichloromethane &MIBK 2-/4-Chlorotoluene / n-propylbenzene MIBK/2-Hexanone Methyl/Ethyl Methacrylate 1,1-Dichloroethene /cis-1,2 & trans-1,2-Dichloroethene 1,1-Dichloropropene / cis / tran -1,3-Dichloropropene /1,2,3-Trichloropropane	/			/	
6. Label number of standard used recorded?	/			/	
7. Manual integrations documented and checked?	/			/	Chloro methane Acetonitrile 2 chloro toluene Ethanol IPA
8. Do the Internal Standards meet criteria for %D against ICAL?	/			/	
9. Does this CCV pass Q4 criteria?	/			/	

1st Level Reviewer: [Signature] Date: 06/09/15
 2nd Level Reviewer: [Signature] Date: 06/09/15

Page 608 of 1738

06/25/2015

Sequence Name: C:\HPCHEM\1\SEQUENCE\060915pm.S

Comment:

Operator: bergerb

Data Path: C:\HPCHEM\1\data\060915pm\

Pre-Seq Cmd:

Post-Seq Cmd:

Test America Denver

Instrument: 2

DV-MS-0010 (8260B/824) (Circle)

Purge Volume: 120mL/5mL/5g
(Circle)

Tune Time: 1729

Line Batch: 281058

Method Sections To Run On A Barcode Mismatch
(X) Full Method (X) Inject Anyway
() Reprocessing Only () Don't Inject

Line Type	Vial	DataFile	Method	Sample Name
1 Sample	100	Z8584	BFB	bfb 1729
2 Sample	1	Z8585	8260	ccv m
3 Sample	2	Z8586	8260	ccv s
4 Sample	3	Z8587	8260	lcs
5 Sample	4	Z8588	8260	blank
6 Sample	5	Z8589	8260	lcs
7 Sample	6	Z8590	8260	mb af
8 Sample	7	Z8591	8260	280-70059-G-1 pH<2
9 Sample	8	Z8592	8260	280-70059-A-3 pH<2
10 Sample	9	Z8593	8260	280-70279-A-1 pH<2
11 Sample	10	Z8594	8260	280-70279-A-2 pH<2
12 Sample	11	Z8595	8260	280-70279-A-3 pH<2
13 Sample	12	Z8596	8260	280-70279-A-4 pH<2
14 Sample	13	Z8597	8260	280-70279-A-5 pH<2
15 Sample	14	Z8598	8260	280-70279-H-6 pH<2
16 Sample	15	Z8599	8260	ccvc
17 Sample	16	Z8600	8260	480-81277-D-1 pH<2
18 Sample	17	Z8601	8260	480-81277-D-1 pH<2 ms
19 Sample	18	Z8602	8260	480-81277-D-1 pH<2 msd
20 Sample	19	Z8603	8260	480-81277-E-2 pH<2
21 Sample	20	Z8604	8260	480-81277-E-3 pH<2
22 Sample	21	Z8605	8260	480-81277-E-4 pH<2

888
6/10/15

DNR

66111

TestAmerica Laboratories
Worklist Report

Worklist Name: 060915pm
 Instrument Name: VMS_Z
 Purge Volume: 20.00
 Analysis Type: VOA
 Batch Directory: \\Denchrom\ChromData\VMS_Z\20150609-35874.b
 Upload Directory: \\Corptalsapp06\280-DN-RawData\Organics\MS\VMS_Z
 Run Reagent: MV-567649-D_00001
 Run Reagent: MV-ARCH SS A_00047

Worklist Number: 35874
 Chrom Method: AQ_VMSZ_8260
 Units: mL
 Amount Added: 1.000000, Units: uL
 Amount Added: 0.840000, Units: uL

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Initial Vol/Wt	Vol/Wt Units	Dilution Factor
280-0035874-001 	# 1 BFB 	MV-BFB_00018	BFB		voaWater	1.000000	uL	1.000000
280-0035874-002 	# 2 CCV 	MV-567649-D_00001 MV-Main A_00023 MV-Gas/Ket A_00034 MV-2cleve+AVA_00010	CCV		voaWater	20.00	mL	1.000000
280-0035874-003 	# 3 CCV 	MV-Supp A_00011	CCV		voaWater	20.00	mL	1.000000
280-0035874-004 	# 4 LCS 	MV-Main B_00010 MV-Gas/Ket B_00019 MV-SS 2-Cleve_00021	LCS		voaWater	20.00	mL	1.000000
280-0035874-005 	# 5 LCSD 	MV-Main B_00010 MV-Gas/Ket B_00019 MV-SS 2-Cleve_00021	LCSD		voaWater	20.00	mL	1.000000
280-0035874-006 	# 6 MB 		MB		voaWater	20.00	mL	1.000000
280-0035874-007 	# 7 280-62974-A-1 		Client		voaWater	20.00	mL	1.000000
280-0035874-008 	# 8 280-62974-A-2 		Client		voaWater	20.00	mL	1.000000
280-0035874-009 	# 9 280-70059-G-1 		Client		voaWater	20.00	mL	1.000000
280-0035874-010 	#10 280-70059-A-3 		Client		voaWater	20.00	mL	1.000000
280-0035874-011 	#11 280-70279-A-1 		Client		voaWater	20.00	mL	1.000000
280-0035874-012 	#12 280-70279-A-2 		Client		voaWater	20.00	mL	1.000000

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Initial Vol/Wt	Vol/Wt Units	Dilution Factor
280-0035874-013 	#13 280-70279-A-3 		Client		voaWater	20.00	mL	1.000000
280-0035874-014 	#14 280-70279-A-4 		Client		voaWater	20.00	mL	1.000000
280-0035874-015 	#15 280-70279-A-5 		Client		voaWater	20.00	mL	1.000000
280-0035874-016 	#16 280-70279-H-6 		Client		voaWater	20.00	mL	1.000000
280-0035874-017 	#17 ccvc 	MV-Main A_00023 MV-Gas/Ket A_00034 MV-2cleve+AVA_00010	CCVC		voaWater	20.00	mL	1.000000
280-0035874-018 	#18 480-81277-F-1 		Client		voaWater	20.00	mL	1.000000
280-0035874-019 	#19 480-81277-F-1 MS 	MV-Main B_00010 MV-Gas/Ket B_00019 MV-SS 2-Cleve_00021	MS		voaWater	20.00	mL	1.000000
280-0035874-020 	#20 480-81277-F-1 MSD 	MV-Main B_00010 MV-Gas/Ket B_00019 MV-SS 2-Cleve_00021	MSD		voaWater	20.00	mL	1.000000
280-0035874-021 	#21 480-81277-E-2 		Client		voaWater	20.00	mL	1.000000
280-0035874-022 	#22 480-81277-E-3 		Client		voaWater	20.00	mL	1.000000
280-0035874-023 	#23 480-81277-E-4 		Client		voaWater	20.00	mL	1.000000
280-0035874-024 	#24 Samp 24 		Client		voaWater	20.00	mL	1.000000

TestAmerica Denver
GC/MS Initial Calibration Review Checklist

MAIN



Instrument ID and Date: H 5-27-15 ICAL Batch/ICV lines 279265 ICV-22
 Calibration Event 22417 Work List 35452 2nd Day Batch/ICV lines N/A

Check Method Used: Analysis 624 8260B Other VOA _____

VOA Preparation 5mL 20mL 5035 Low 5035 High 5030 Low 5030 High

Review Items	Level 1			Level 2	Comments
	Yes	No	N/A		
Initial Calibration					
1. BFB meets criteria?	/			/	
2. ICAL date and instrument ID verified?	/			/	
3. Does the Form VI match the data in the Chrom source method?	/			/	
4. Sufficient number of calibration points used?	/			/	Some points < RL removed
5. Reasons for removal of points documented?	/			/	
6. %RSD or correlation coefficient within method limits?	/			/	
7. Response factors meet criteria?	/			/	
8. Isomeric pairs checked for correct peak assignment? Vinyl acetate/Isopropyl ether 1,3- /1,4- /1,2-Dichlorobenzene Ethylbenzene/Xylenes 1,3,5- /1,2,4-Trimethylbenzene / isopropylbenzene 2-Nitropropane between Bromodichloromethane &MIBK 2- /4-Chlorotoluene / n-propylbenzene MIBK/2-Hexanone Methyl/Ethyl Methacrylate 1,1-Dichloroethene /cis-1,2 & trans-1,2-Dichloroethene 1,1-Dichloropropene / cis / tran -1,3-Dichloropropene /1,2,3-Trichloropropane	/			/	
9. Data checked for detector saturation?	/			/	
10. Label number of standards used recorded?	/			/	see below
11. Manual integrations documented and checked?	/			/	
12. 2 nd source ICV recovery <u>80-120% (±20%drift) for DoD projects</u> 65-135% (±35%, or ±55% of expected for poor performers) for non-DoD? Exceptions noted in comment section.	/			/	

1st Level Reviewer: Taw

Date: 5-28-15

2nd Level Reviewer: 887

Date: 5-28-15

Not Good For AFCEE
 Man. Int.
 chloromethane: level 2,3

Page 612 of 1738

06/25/2015

Sequence Name: C:\HPCHEM\1\SEQUENCE\052715i.S

Comment:

Operator: BERGERB

Data Path: C:\HPCHEM\1\DATA\052715i\

Pre-Seq Cmd:

Post-Seq Cmd:

Test America Denver

Instrument: H

MS-0010 (~~8260~~624) (Circle)

Purge Volume: (~~20mL~~5mL/5g) (Circle)

Tune Time: 23:12 - 07:25

Line Batch: 279265

Method Sections To Run On A Barcode Mismatch

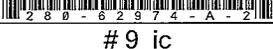
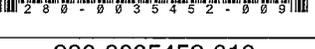
(X) Full Method (X) Inject Anyway

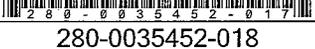
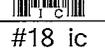
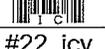
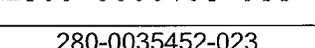
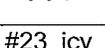
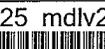
() Reprocessing Only () Don't Inject

Line Type	Vial	DataFile	Method	Sample Name
1 Sample	62	H2944	8260	blank
2 Sample	63	H2945	8260	blank
3 Sample	100	H2946	BFB	bfb 23:12
4 Sample	1	H2947	8260	blank
5 Sample	2	H2948	8260	blank
6 Sample	3	H2949	8260	ic
7 Sample	4	H2950	8260	ic
8 Sample	5	H2951	8260	ic
9 Sample	6	H2952	8260	ic
10 Sample	7	H2953	8260	ic
11 Sample	8	H2954	8260	ic
12 Sample	9	H2955	8260	ic
13 Sample	10	H2956	8260	icv
14 Sample	11	H2957	8260	ic
15 Sample	12	H2958	8260	ic
16 Sample	13	H2959	8260	ic
17 Sample	14	H2960	8260	icis
18 Sample	15	H2961	8260	ic
19 Sample	16	H2962	8260	ic
20 Sample	17	H2963	8260	icv
21 Sample	18	H2964	8260	mdlv1
22 Sample	19	H2965	8260	mdlv2
23 Sample	20	H2966	8260	mdlv3
24 Sample	21	H2967	8260	mdlv4
25 Sample	22	H2968	8260	mdlv5 07:25

TestAmerica Laboratories
Worklist Report

Worklist Name: 052715i
Instrument Name: VMS_H
Purge Volume: 20.00
Analysis Type: VOA
Batch Directory: \\Denchrom\ChromData\VMS_H\20150528-35452.b
Upload Directory: \\Corptalsapp06\280-DN-RawData\Organics\MS\VMS_H
Run Reagent: MV-568718-D_00002 Amount Added: 1.000000, Units: uL
Run Reagent: MV-ARCH SS A_00042 Amount Added: 0.680000, Units: uL

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Initial Vol/Wt	Vol/Wt Units	Dilution Factor
280-0035452-001 	# 1 BFB 	MV-BFB_00018	BFB		voaWater	1.000000	uL	1.000000
280-0035452-002 	# 2 CCV 	MV-568718-D_00002 MV-Main A_00022 MV-Gas/Ket A_00033 MV-2cleve+AVA_00009	CCV		voaWater	20.00	mL	1.000000
280-0035452-003 	# 3 CCV 	MV-Supp A_00011	CCV		voaWater	20.00	mL	1.000000
280-0035452-004 	# 4 LCS 	MV-Main B_00009 MV-Gas/Ket B_00017 MV-SS 2-Cleve_00020	LCS		voaWater	20.00	mL	1.000000
280-0035452-005 	# 5 LCSD 	MV-Main B_00009 MV-Gas/Ket B_00017 MV-SS 2-Cleve_00020	LCSD		voaWater	20.00	mL	1.000000
280-0035452-006 	# 6 MB 		MB		voaWater	20.00	mL	1.000000
280-0035452-007 	# 7 280-62974-A-1 		Client		voaWater	20.00	mL	1.000000
280-0035452-008 	# 8 280-62974-A-2 		Client		voaWater	20.00	mL	1.000000
280-0035452-009 	# 9 ic 	MV-568718-D_00002 MV-Main A_00022 MV-Gas/Ket A_00033 MV-2cleve+AVA_00009	IC	1	voaWater	20.00	mL	1.000000
280-0035452-010 	#10 ic 	MV-568718-D_00002 MV-Main A_00022 MV-Gas/Ket A_00033 MV-2cleve+AVA_00009	IC	2	voaWater	20.00	mL	1.000000
280-0035452-011 	#11 ic 	MV-568718-D_00002 MV-Main A_00022 MV-Gas/Ket A_00033 MV-2cleve+AVA_00009	IC	3	voaWater	20.00	mL	1.000000

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Initial Vol/Wt	Vol/Wt Units	Dilution Factor
280-0035452-012 	#12 ic 	MV-568718-D_00002 MV-Main A_00022 MV-Gas/Ket A_00033 MV-2cleve+AVA_00009	IC	4	voaWater	20.00	mL	1.000000
280-0035452-013 	#13 ic 	MV-568718-D_00002 MV-Main A_00022 MV-Gas/Ket A_00033 MV-2cleve+AVA_00009	IC	5	voaWater	20.00	mL	1.000000
280-0035452-014 	#14 ic 	MV-568718-D_00002 MV-Main A_00022 MV-Gas/Ket A_00033 MV-2cleve+AVA_00009	IC	6	voaWater	20.00	mL	1.000000
280-0035452-015 	#15 ic 	MV-568718-D_00002 MV-Main A_00022 MV-Gas/Ket A_00033 MV-2cleve+AVA_00009	IC	7	voaWater	20.00	mL	1.000000
280-0035452-016 	#16 ic 	MV-568718-D_00002 MV-Supp A_00011 MV-ARCH SS A_00042	IC	2	voaWater	20.00	mL	1.000000
280-0035452-017 	#17 ic 	MV-568718-D_00002 MV-Supp A_00011 MV-ARCH SS A_00042	IC	3	voaWater	20.00	mL	1.000000
280-0035452-018 	#18 ic 	MV-568718-D_00002 MV-Supp A_00011 MV-ARCH SS A_00042	IC	4	voaWater	20.00	mL	1.000000
280-0035452-019 	#19 icis 	MV-568718-D_00002 MV-Supp A_00011 MV-ARCH SS A_00042	ICIS	5	voaWater	20.00	mL	1.000000
280-0035452-020 	#20 ic 	MV-568718-D_00002 MV-Supp A_00011 MV-ARCH SS A_00042	IC	6	voaWater	20.00	mL	1.000000
280-0035452-021 	#21 ic 	MV-568718-D_00002 MV-Supp A_00011 MV-ARCH SS A_00042	IC	7	voaWater	20.00	mL	1.000000
280-0035452-022 	#22 icv 	MV-568718-D_00002 MV-Main B_00009 MV-Gas/Ket B_00017 MV-SS 2-Cleve_00020	ICV		voaWater	20.00	mL	1.000000
280-0035452-023 	#23 icv 	MV-568718-D_00002 MV-Supp B_00005 MV-ARCH SS A_00042	ICV		voaWater	20.00	mL	1.000000
280-0035452-024 	#24 mdlv1 	MV-568718-D_00002 MV-Main A_00022 MV-Gas/Ket A_00033 MV-2cleve+AVA_00009	Client		voaWater	20.00	mL	1.000000
280-0035452-025 	#25 mdlv2 	MV-568718-D_00002 MV-Main A_00022 MV-Gas/Ket A_00033 MV-2cleve+AVA_00009	Client		voaWater	20.00	mL	1.000000
280-0035452-026 	#26 mdlv3 	MV-568718-D_00002 MV-Main A_00022 MV-Gas/Ket A_00033 MV-2cleve+AVA_00009	Client		voaWater	20.00	mL	1.000000

TestAmerica Denver
GC/MS Initial Calibration Review Checklist

SUPP

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Instrument ID and Date: H 5-27-15 ICAL Batch/ICV lines 279265 ICIS-19 ICV-23
Calibration Event 22417 Work List 35452 2nd Day Batch/ICV lines N/A

Check Method Used: Analysis 624 8260B Other VOA _____

VOA Preparation 5mL 20mL 5035 Low 5035 High 5030 Low 5030 High

Review Items	Level 1			Level 2	Comments
	Yes	No	N/A		
Initial Calibration					
1. BFB meets criteria?	/			/	
2. ICAL date and instrument ID verified?	/			/	
3. Does the Form VI match the data in the Chrom source method?	/			/	
4. Sufficient number of calibration points used?	/			/	Some points < RL removed
5. Reasons for removal of points documented?	/			/	
6. %RSD or correlation coefficient within method limits?	/			/	
7. Response factors meet criteria?	/			/	
8. Isomeric pairs checked for correct peak assignment? Vinyl acetate/Isopropyl ether 1,3- /1,4- /1,2-Dichlorobenzene Ethylbenzene/Xylenes 1,3,5- /1,2,4-Trimethylbenzene / isopropylbenzene 2-Nitropropane between Bromodichloromethane &MIBK 2- /4-Chlorotoluene / n-propylbenzene MIBK/2-Hexanone Methyl/Ethyl Methacrylate 1,1-Dichloroethene /cis-1,2 & trans-1,2-Dichloroethene 1,1-Dichloropropene / cis / tran -1,3-Dichloropropene /1,2,3-Trichloropropene	/			/	
9. Data checked for detector saturation?	/			/	
10. Label number of standards used recorded?	/			/	See below
11. Manual integrations documented and checked?	/			/	ethyl acetate -52% + tetrahydrothiophene -22%
12. 2 nd source ICV recovery <u>80-120% (±20% drift) for DoD projects,</u> 65-135% (±35%, or ±55% of expected for poor performers) for non-DoD? Exceptions noted in comment section.	/			/	

1st Level Reviewer: Tau Date: 5-28-15

2nd Level Reviewer: 888 Date: 5-28-15

Man. Int.
acetonitrile = level 2,3
ethanol = level 3,4
isopropyl alcohol = level 6

Sequence Name: C:\HPCHEM\1\SEQUENCE\052715i.S

Comment:

Operator: BERGERB

Data Path: C:\HPCHEM\1\DATA\052715i\

Pre-Seq Cmd:

Post-Seq Cmd:

Test America Denver

Instrument: H

OV-MS-0010 (8260B/624) (Circle)

Purge Volume: (20mD/5mL/5g)

(Circle)

Tune Time: 23:12 - 07:25

Line Batch: 279265

Method Sections To Run On A Barcode Mismatch

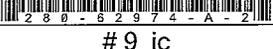
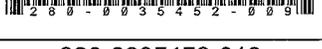
(X) Full Method (X) Inject Anyway

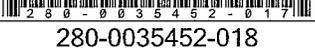
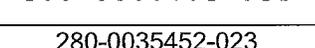
() Reprocessing Only () Don't Inject

Line Type	Vial	DataFile	Method	Sample Name
1 Sample	62	H2944	8260	blank
2 Sample	63	H2945	8260	blank
3 Sample	100	H2946	BFB	bfb 23:12
4 Sample	1	H2947	8260	blank
5 Sample	2	H2948	8260	blank
6 Sample	3	H2949	8260	ic
7 Sample	4	H2950	8260	ic
8 Sample	5	H2951	8260	ic
9 Sample	6	H2952	8260	ic
10 Sample	7	H2953	8260	ic
11 Sample	8	H2954	8260	ic
12 Sample	9	H2955	8260	ic
13 Sample	10	H2956	8260	icv
14 Sample	11	H2957	8260	ic
15 Sample	12	H2958	8260	ic
16 Sample	13	H2959	8260	ic
17 Sample	14	H2960	8260	icis
18 Sample	15	H2961	8260	ic
19 Sample	16	H2962	8260	ic
20 Sample	17	H2963	8260	icv
21 Sample	18	H2964	8260	mdlv1
22 Sample	19	H2965	8260	mdlv2
23 Sample	20	H2966	8260	mdlv3
24 Sample	21	H2967	8260	mdlv4
25 Sample	22	H2968	8260	mdlv5 07:25

TestAmerica Laboratories
Worklist Report

Worklist Name: 052715i
 Instrument Name: VMS_H
 Purge Volume: 20.00
 Analysis Type: VOA
 Batch Directory: \\Denchrom\ChromData\VMS_H\20150528-35452.b
 Upload Directory: \\Corptalsapp06\280-DN-RawData\Organics\MS\VMS_H
 Run Reagent: MV-568718-D_00002 Amount Added: 1.000000, Units: uL
 Run Reagent: MV-ARCH SS A_00042 Amount Added: 0.680000, Units: uL

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Initial Vol/Wt	Vol/Wt Units	Dilution Factor
280-0035452-001 	# 1 BFB 	MV-BFB_00018	BFB		voaWater	1.000000	uL	1.000000
280-0035452-002 	# 2 CCV 	MV-568718-D_00002 MV-Main A_00022 MV-Gas/Ket A_00033 MV-2cleve+AVA_00009	CCV		voaWater	20.00	mL	1.000000
280-0035452-003 	# 3 CCV 	MV-Supp A_00011	CCV		voaWater	20.00	mL	1.000000
280-0035452-004 	# 4 LCS 	MV-Main B_00009 MV-Gas/Ket B_00017 MV-SS 2-Cleve_00020	LCS		voaWater	20.00	mL	1.000000
280-0035452-005 	# 5 LCSD 	MV-Main B_00009 MV-Gas/Ket B_00017 MV-SS 2-Cleve_00020	LCSD		voaWater	20.00	mL	1.000000
280-0035452-006 	# 6 MB 		MB		voaWater	20.00	mL	1.000000
280-0035452-007 	# 7 280-62974-A-1 		Client		voaWater	20.00	mL	1.000000
280-0035452-008 	# 8 280-62974-A-2 		Client		voaWater	20.00	mL	1.000000
280-0035452-009 	# 9 ic 	MV-568718-D_00002 MV-Main A_00022 MV-Gas/Ket A_00033 MV-2cleve+AVA_00009	IC	1	voaWater	20.00	mL	1.000000
280-0035452-010 	#10 ic 	MV-568718-D_00002 MV-Main A_00022 MV-Gas/Ket A_00033 MV-2cleve+AVA_00009	IC	2	voaWater	20.00	mL	1.000000
280-0035452-011 	#11 ic 	MV-568718-D_00002 MV-Main A_00022 MV-Gas/Ket A_00033 MV-2cleve+AVA_00009	IC	3	voaWater	20.00	mL	1.000000

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Initial Vol/Wt	Vol/Wt Units	Dilution Factor
280-0035452-012 	#12 ic 	MV-568718-D_00002 MV-Main A_00022 MV-Gas/Ket A_00033 MV-2cleve+AVA_00009	IC	4	voaWater	20.00	mL	1.000000
280-0035452-013 	#13 ic 	MV-568718-D_00002 MV-Main A_00022 MV-Gas/Ket A_00033 MV-2cleve+AVA_00009	IC	5	voaWater	20.00	mL	1.000000
280-0035452-014 	#14 ic 	MV-568718-D_00002 MV-Main A_00022 MV-Gas/Ket A_00033 MV-2cleve+AVA_00009	IC	6	voaWater	20.00	mL	1.000000
280-0035452-015 	#15 ic 	MV-568718-D_00002 MV-Main A_00022 MV-Gas/Ket A_00033 MV-2cleve+AVA_00009	IC	7	voaWater	20.00	mL	1.000000
280-0035452-016 	#16 ic 	MV-568718-D_00002 MV-Supp A_00011 MV-ARCH SS A_00042	IC	2	voaWater	20.00	mL	1.000000
280-0035452-017 	#17 ic 	MV-568718-D_00002 MV-Supp A_00011 MV-ARCH SS A_00042	IC	3	voaWater	20.00	mL	1.000000
280-0035452-018 	#18 ic 	MV-568718-D_00002 MV-Supp A_00011 MV-ARCH SS A_00042	IC	4	voaWater	20.00	mL	1.000000
280-0035452-019 	#19 icis 	MV-568718-D_00002 MV-Supp A_00011 MV-ARCH SS A_00042	ICIS	5	voaWater	20.00	mL	1.000000
280-0035452-020 	#20 ic 	MV-568718-D_00002 MV-Supp A_00011 MV-ARCH SS A_00042	IC	6	voaWater	20.00	mL	1.000000
280-0035452-021 	#21 ic 	MV-568718-D_00002 MV-Supp A_00011 MV-ARCH SS A_00042	IC	7	voaWater	20.00	mL	1.000000
280-0035452-022 	#22 icv 	MV-568718-D_00002 MV-Main B_00009 MV-Gas/Ket B_00017 MV-SS 2-Cleve_00020	ICV		voaWater	20.00	mL	1.000000
280-0035452-023 	#23 icv 	MV-568718-D_00002 MV-Supp B_00005 MV-ARCH SS A_00042	ICV		voaWater	20.00	mL	1.000000
280-0035452-024 	#24 mdlv1 	MV-568718-D_00002 MV-Main A_00022 MV-Gas/Ket A_00033 MV-2cleve+AVA_00009	Client		voaWater	20.00	mL	1.000000
280-0035452-025 	#25 mdlv2 	MV-568718-D_00002 MV-Main A_00022 MV-Gas/Ket A_00033 MV-2cleve+AVA_00009	Client		voaWater	20.00	mL	1.000000
280-0035452-026 	#26 mdlv3 	MV-568718-D_00002 MV-Main A_00022 MV-Gas/Ket A_00033 MV-2cleve+AVA_00009	Client		voaWater	20.00	mL	1.000000

TestAmerica Denver
GC/MS Initial Calibration Review Checklist



Instrument ID and Date: Z 06/01/15 i Main/Gas ICAL Batch/ICV lines: 279871 **icv 27/22/22**
 Calibration Event 22471 Work List 35585 2nd Day Batch/ICV lines _____

Magn Gas M 6-2-15

Check Method Used: Analysis 624 8260B Other VOA _____

VOA Preparation 5mL 20mL 5035 Low 5035 High 5030 Low 5030 High

Review Items	Level 1			Level 2	Comments
	Yes	No	N/A		
Initial Calibration					
1. BFB meets criteria?	/			X	
2. ICAL date and instrument ID verified?	/			X	
3. Does the Form VI match the data in the Chrom source method?	/			X	
4. Sufficient number of calibration points used?	/			X	
5. Reasons for removal of points documented?	/			X	Some points < RL removed. See below
6. %RSD or correlation coefficient within method limits?	/			X	
7. Response factors meet criteria?	/			X	
8. Isomeric pairs checked for correct peak assignment? Vinyl acetate/Isopropyl ether 1,3- /1,4- /1,2-Dichlorobenzene Ethylbenzene/Xylenes 1,3,5- /1,2,4-Trimethylbenzene / isopropylbenzene 2-Nitropropane between Bromodichloromethane & MIBK 2- /4-Chlorotoluene / n-propylbenzene MIBK/2-Hexanone Methyl/Ethyl Methacrylate 1,1-Dichloroethene / cis-1,2 & trans-1,2-Dichloroethene 1,1-Dichloropropene / cis / tran -1,3-Dichloropropene /1,2,3-Trichloropropene	/			X	
9. Data checked for detector saturation?	/			X	
10. Label number of standards used recorded?	/			X	
11. Manual integrations documented and checked?	/			X	Chloromethane, 2-methyl-2-propanol, 2-chlorotoluene
12. 2 nd source ICV recovery 80-120% (±20%drift) for DoD projects, 65-135% (±35%, or ±55% of expected for poor performers) for non-DoD? Exceptions noted in comment section.	/			X	2 IR-DCR

1st Level Reviewer: *SSS* Date: 06/01/15
 2nd Level Reviewer: _____ Date: 6-2-15

Not Calibrated
 1,4-Dioxane

Sequence Name: C:\HPCHEM\1\SEQUENCE\060115i.S

Comment:

Operator: bergerb

Data Path: C:\HPCHEM\1\data\060115i\

Pre-Seq Cmd:

Post-Seq Cmd:

Test America Denver

Instrument: Z

DV-MS-0010 (826)B/624 (Circle)

Purge Volume: (20)mL/5mL/5g

Tune Time: 19:09-5:38 (Circle)

Lims Batch: 279871

Method Sections To Run On A Barcode Mismatch

(X) Full Method (X) Inject Anyway

() Reprocessing Only () Don't Inject

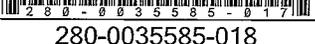
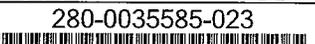
Line Type	Vial	DataFile	Method	Sample Name
1 Sample	62	Z8216	8260	primer
2 Sample	63	Z8217	8260	primer
3 Sample	100	Z8218	BFB	bfb
4 Sample	1	Z8219	8260	blank
5 Sample	2	Z8220	8260	ic
6 Sample	3	Z8221	8260	ic
7 Sample	4	Z8222	8260	ic
8 Sample	5	Z8223	8260	ic
9 Sample	6	Z8224	8260	ic
10 Sample	7	Z8225	8260	ic
11 Sample	8	Z8226	8260	ic
12 Sample	9	Z8227	8260	icv
13 Sample	10	Z8228	8260	ic
14 Sample	11	Z8229	8260	ic
15 Sample	12	Z8230	8260	ic
16 Sample	13	Z8231	8260	icis
17 Sample	14	Z8232	8260	ic
18 Sample	15	Z8233	8260	ic
19 Sample	16	Z8234	8260	icv
20 Sample	17	Z8235	8260	icv
21 Sample	18	Z8236	8260	mdlv1
22 Sample	19	Z8237	8260	mdlv2
23 Sample	20	Z8238	8260	mdlv3
24 Sample	22	Z8239	8260	mdlv4
25 Sample	23	Z8240	8260	mdlv5
26 Sample	24	Z8241	8260	mdlv7
27 Sample	25	Z8242	8260	mdlv8
28 Sample	26	Z8243	8260	mdlv9
29 Sample	27	Z8244	8260	mdlv10
30 Sample	28	Z8245	8260	mdlv11

W 35585

TestAmerica Laboratories
Worklist Report

Worklist Name: 060115i Worklist Number: 35585
 Instrument Name: VMS_Z Chrom Method: AQ_VMSZ_8260
 Purge Volume: 20.00 Units: mL
 Analysis Type: VOA
 Batch Directory: \\Denchrom\ChromData\VMS_Z\20150601-35585.b
 Upload Directory: \\Corptalsapp06\280-DN-RawData\Organics\MS\VMS_Z
 Run Reagent: MV-567649-D_00001 Amount Added: 1.000000, Units: uL
 Run Reagent: MV-ARCH SS A_00047 Amount Added: 0.840000, Units: uL

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Initial Vol/Wt	Vol/Wt Units	Dilution Factor
280-0035585-001 	# 1 BFB 	MV-BFB_00018	BFB		voaWater	1.000000	uL	1.000000
280-0035585-002 	# 2 CCV 	MV-567649-D_00001 MV-Main A_00023 MV-Gas/Ket A_00033 MV-2cleve+AVA_00010	CCV		voaWater	20.00	mL	1.000000
280-0035585-003 	# 3 CCV 	MV-Supp A_00011	CCV		voaWater	20.00	mL	1.000000
280-0035585-004 	# 4 LCS 	MV-Main B_00010 MV-Gas/Ket B_00019 MV-SS 2-Cleve_00021	LCS		voaWater	20.00	mL	1.000000
280-0035585-005 	# 5 LCSD 	MV-Main B_00010 MV-Gas/Ket B_00019 MV-SS 2-Cleve_00021	LCSD		voaWater	20.00	mL	1.000000
280-0035585-006 	# 6 MB 		MB		voaWater	20.00	mL	1.000000
280-0035585-007 	# 7 280-62974-A-1 		Client		voaWater	20.00	mL	1.000000
280-0035585-008 	# 8 280-62974-A-3 		Client		voaWater	20.00	mL	1.000000
280-0035585-009 	# 9 IC 	MV-567649-D_00001 MV-Main A_00023 MV-Gas/Ket A_00033 MV-2cleve+AVA_00010	IC	1	voaWater	20.00	mL	1.000000
280-0035585-010 	#10 IC 	MV-567649-D_00001 MV-Main A_00023 MV-Gas/Ket A_00033 MV-2cleve+AVA_00010	IC	2	voaWater	20.00	mL	1.000000
280-0035585-011 	#11 IC 	MV-567649-D_00001 MV-Main A_00023 MV-Gas/Ket A_00033 MV-2cleve+AVA_00010	IC	3	voaWater	20.00	mL	1.000000

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Initial Vol/Wt	Vol/Wt Units	Dilution Factor
280-0035585-012 	#12 IC 	MV-567649-D_00001 MV-Main A_00023 MV-Gas/Ket A_00033 MV-2cleve+AVA_00010	IC	4	voaWater	20.00	mL	1.000000
280-0035585-013 	#13 IC 	MV-567649-D_00001 MV-Main A_00023 MV-Gas/Ket A_00033 MV-2cleve+AVA_00010	IC	5	voaWater	20.00	mL	1.000000
280-0035585-014 	#14 IC 	MV-567649-D_00001 MV-Main A_00023 MV-Gas/Ket A_00033 MV-2cleve+AVA_00010	IC	6	voaWater	20.00	mL	1.000000
280-0035585-015 	#15 IC 	MV-567649-D_00001 MV-Main A_00023 MV-Gas/Ket A_00033 MV-2cleve+AVA_00010	IC	7	voaWater	20.00	mL	1.000000
280-0035585-016 	#16 IC 	MV-567649-D_00001 MV-Supp A_00011 MV-ARCH SS A_00047	IC	2	voaWater	20.00	mL	1.000000
280-0035585-017 	#17 IC 	MV-567649-D_00001 MV-Supp A_00011 MV-ARCH SS A_00047	IC	3	voaWater	20.00	mL	1.000000
280-0035585-018 	#18 IC 	MV-567649-D_00001 MV-Supp A_00011 MV-ARCH SS A_00047	IC	4	voaWater	20.00	mL	1.000000
280-0035585-019 	#19 ICIS 	MV-567649-D_00001 MV-Supp A_00011 MV-ARCH SS A_00047	ICIS	5	voaWater	20.00	mL	1.000000
280-0035585-020 	#20 IC 	MV-567649-D_00001 MV-Supp A_00011 MV-ARCH SS A_00047	IC	6	voaWater	20.00	mL	1.000000
280-0035585-021 	#21 IC 	MV-567649-D_00001 MV-Supp A_00011 MV-ARCH SS A_00047	IC	7	voaWater	20.00	mL	1.000000
280-0035585-022 	#22 ICV 	MV-567649-D_00001 MV-Main B_00010 MV-SS 2-Cleve_00021	ICV		voaWater	20.00	mL	1.000000
280-0035585-023 	#23 ICV 	MV-567649-D_00001 MV-Gas/Ket B_00019	ICV		voaWater	20.00	mL	1.000000
280-0035585-024 	#24 ICV 	MV-567649-D_00001 MV-Supp B_00005 MV-ARCH SS A_00047	ICV		voaWater	20.00	mL	1.000000

TestAmerica Denver
GC/MS Initial Calibration Review Checklist



Instrument ID and Date: Z 06/01/15 i Supp ICAL Batch/ICV lines: 279871 isis 19 icv 24
 Calibration Event 22471 Work List 35585 2nd Day Batch/ICV lines _____

Check Method Used: Analysis 624 8260B Other VOA _____

VOA Preparation 5mL 20mL 5035 Low 5035 High 5030 Low 5030 High

Review Items	Level 1			Level 2	Comments
	Yes	No	N/A		
Initial Calibration					
1. BFB meets criteria?	/			+	
2. ICAL date and instrument ID verified?	/			+	
3. Does the Form VI match the data in the Chrom source method?	/			+	
4. Sufficient number of calibration points used?	/			+	
5. Reasons for removal of points documented?	/			+	Some points < RL removed. See below
6. %RSD or correlation coefficient within method limits?	/			+	
7. Response factors meet criteria?	/			+	
8. Isomeric pairs checked for correct peak assignment? Vinyl acetate/Isopropyl ether 1,3- /1,4- /1,2-Dichlorobenzene Ethylbenzene/Xylenes 1,3,5- /1,2,4-Trimethylbenzene / isopropylbenzene 2-Nitropropane between Bromodichloromethane & MIBK 2- /4-Chlorotoluene / n-propylbenzene MIBK/2-Hexanone Methyl/Ethyl Methacrylate 1,1-Dichloroethene /cis-1,2 & trans-1,2-Dichloroethene 1,1-Dichloropropene / cis / tran -1,3-Dichloropropene /1,2,3-Trichloropropane	/			+	
9. Data checked for detector saturation?	/			+	
10. Label number of standards used recorded?	/			+	
11. Manual integrations documented and checked?	/			+	Tert-amyl methyl ether, Isopropyl alcohol
12. 2 nd source ICV recovery 80-120% (±20%drift) for DoD projects, 65-135% (±35%, or ±55% of expected for poor performers) for non-DoD? Exceptions noted in comment section.	/			+	See below

1st Level Reviewer: 886 MM

Date: 06/01/15

2nd Level Reviewer: _____

Date: 6-2-15

Ethylene oxide -27.5%D
 Propene oxide -22.1%D
 Isopropyl alcohol -37.5%D
 Tetrahydrothiophen -26.4%D

Revision 4
03/27/2013

C:\Users\bergerb\Desktop\GCMS VOA ICAL supp.doc

Sequence Name: C:\HPCHEM\1\SEQUENCE\060115i.S
 Comment:
 Operator: bergerb
 Data Path: C:\HPCHEM\1\data\060115i\
 Pre-Seq Cmd:
 Post-Seq Cmd:

Test America Denver

Instrument: Z

DV-MS-0010 (826)B/624 (Circle)

Purge Volume: (20)mL/5mL/5g

Tune Time: 19:09-5:38 (Circle)

Line Batch: 279871

WL 35585

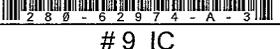
Method Sections To Run On A Barcode Mismatch
 (X) Full Method (X) Inject Anyway
 () Reprocessing Only () Don't Inject

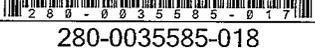
Line Type	Vial	DataFile	Method	Sample Name
1 Sample	62	Z8216	8260	primer
2 Sample	63	Z8217	8260	primer
3 Sample	100	Z8218	BFB	bfb
4 Sample	1	Z8219	8260	blank
5 Sample	2	Z8220	8260	ic
6 Sample	3	Z8221	8260	ic
7 Sample	4	Z8222	8260	ic
8 Sample	5	Z8223	8260	ic
9 Sample	6	Z8224	8260	ic
10 Sample	7	Z8225	8260	ic
11 Sample	8	Z8226	8260	ic
12 Sample	9	Z8227	8260	icv
13 Sample	10	Z8228	8260	ic
14 Sample	11	Z8229	8260	ic
15 Sample	12	Z8230	8260	ic
16 Sample	13	Z8231	8260	icis
17 Sample	14	Z8232	8260	ic
18 Sample	15	Z8233	8260	ic
19 Sample	16	Z8234	8260	icv
20 Sample	17	Z8235	8260	icv
21 Sample	18	Z8236	8260	mdlv1
22 Sample	19	Z8237	8260	mdlv2
23 Sample	20	Z8238	8260	mdlv3
24 Sample	22	Z8239	8260	mdlv4
25 Sample	23	Z8240	8260	mdlv5
26 Sample	24	Z8241	8260	mdlv7
27 Sample	25	Z8242	8260	mdlv8
28 Sample	26	Z8243	8260	mdlv9
29 Sample	27	Z8244	8260	mdlv10
30 Sample	28	Z8245	8260	mdlv11

TestAmerica Laboratories
Worklist Report

Worklist Name: 060115i
Instrument Name: VMS_Z
Purge Volume: 20.00
Analysis Type: VOA
Batch Directory: \\Denchrom\ChromData\VMS_Z\20150601-35585.b
Upload Directory: \\Corptalsapp06\280-DN-RawData\Organics\MS\VMS_Z
Run Reagent: MV-567649-D_00001
Run Reagent: MV-ARCH SS A_00047

Worklist Number: 35585
Chrom Method: AQ_VMSZ_8260
Units: mL
Amount Added: 1.000000, Units: uL
Amount Added: 0.840000, Units: uL

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Initial Vol/Wt	Vol/Wt Units	Dilution Factor
280-0035585-001 	# 1 BFB 	MV-BFB_00018	BFB		voaWater	1.000000	uL	1.000000
280-0035585-002 	# 2 CCV 	MV-567649-D_00001 MV-Main A_00023 MV-Gas/Ket A_00033 MV-2cleve+AVA_00010	CCV		voaWater	20.00	mL	1.000000
280-0035585-003 	# 3 CCV 	MV-Supp A_00011	CCV		voaWater	20.00	mL	1.000000
280-0035585-004 	# 4 LCS 	MV-Main B_00010 MV-Gas/Ket B_00019 MV-SS 2-Cleve_00021	LCS		voaWater	20.00	mL	1.000000
280-0035585-005 	# 5 LCSD 	MV-Main B_00010 MV-Gas/Ket B_00019 MV-SS 2-Cleve_00021	LCSD		voaWater	20.00	mL	1.000000
280-0035585-006 	# 6 MB 		MB		voaWater	20.00	mL	1.000000
280-0035585-007 	# 7 280-62974-A-1 		Client		voaWater	20.00	mL	1.000000
280-0035585-008 	# 8 280-62974-A-3 		Client		voaWater	20.00	mL	1.000000
280-0035585-009 	# 9 IC 	MV-567649-D_00001 MV-Main A_00023 MV-Gas/Ket A_00033 MV-2cleve+AVA_00010	IC	1	voaWater	20.00	mL	1.000000
280-0035585-010 	# 10 IC 	MV-567649-D_00001 MV-Main A_00023 MV-Gas/Ket A_00033 MV-2cleve+AVA_00010	IC	2	voaWater	20.00	mL	1.000000
280-0035585-011 	# 11 IC 	MV-567649-D_00001 MV-Main A_00023 MV-Gas/Ket A_00033 MV-2cleve+AVA_00010	IC	3	voaWater	20.00	mL	1.000000

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Initial Vol/Wt	Vol/Wt Units	Dilution Factor
280-0035585-012 	#12 IC 	MV-567649-D_00001 MV-Main A_00023 MV-Gas/Ket A_00033 MV-2cleve+AVA_00010	IC	4	voaWater	20.00	mL	1.000000
280-0035585-013 	#13 IC 	MV-567649-D_00001 MV-Main A_00023 MV-Gas/Ket A_00033 MV-2cleve+AVA_00010	IC	5	voaWater	20.00	mL	1.000000
280-0035585-014 	#14 IC 	MV-567649-D_00001 MV-Main A_00023 MV-Gas/Ket A_00033 MV-2cleve+AVA_00010	IC	6	voaWater	20.00	mL	1.000000
280-0035585-015 	#15 IC 	MV-567649-D_00001 MV-Main A_00023 MV-Gas/Ket A_00033 MV-2cleve+AVA_00010	IC	7	voaWater	20.00	mL	1.000000
280-0035585-016 	#16 IC 	MV-567649-D_00001 MV-Supp A_00011 MV-ARCH SS A_00047	IC	2	voaWater	20.00	mL	1.000000
280-0035585-017 	#17 IC 	MV-567649-D_00001 MV-Supp A_00011 MV-ARCH SS A_00047	IC	3	voaWater	20.00	mL	1.000000
280-0035585-018 	#18 IC 	MV-567649-D_00001 MV-Supp A_00011 MV-ARCH SS A_00047	IC	4	voaWater	20.00	mL	1.000000
280-0035585-019 	#19 ICIS 	MV-567649-D_00001 MV-Supp A_00011 MV-ARCH SS A_00047	ICIS	5	voaWater	20.00	mL	1.000000
280-0035585-020 	#20 IC 	MV-567649-D_00001 MV-Supp A_00011 MV-ARCH SS A_00047	IC	6	voaWater	20.00	mL	1.000000
280-0035585-021 	#21 IC 	MV-567649-D_00001 MV-Supp A_00011 MV-ARCH SS A_00047	IC	7	voaWater	20.00	mL	1.000000
280-0035585-022 	#22 ICV 	MV-567649-D_00001 MV-Main B_00010 MV-SS 2-Cleve_00021	ICV		voaWater	20.00	mL	1.000000
280-0035585-023 	#23 ICV 	MV-567649-D_00001 MV-Gas/Ket B_00019	ICV		voaWater	20.00	mL	1.000000
280-0035585-024 	#24 ICV 	MV-567649-D_00001 MV-Supp B_00005 MV-ARCH SS A_00047	ICV		voaWater	20.00	mL	1.000000

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Denver

Job Number: 280-70279-1

SDG No.: _____

Project: GSI - McConnell AFB - SWMU 207

Client Sample ID
54400-MW55D-0615

Lab Sample ID
280-70279-6

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: 54400-MW55D-0615

Lab Sample ID: 280-70279-6

Lab Name: TestAmerica Denver

Job No.: 280-70279-1

SDG ID.: _____

Matrix: Water

Date Sampled: 06/04/2015 15:10

Reporting Basis WET

Date Received: 06/05/2015 07:00

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Calcium	97000	1000	140	35	ug/L		J	1	6010C
Iron	38	100	85	22	ug/L	J		1	6010C
Magnesium	19000	500	40	11	ug/L			1	6010C
Potassium	1400	3000	940	240	ug/L	J		1	6010C
Sodium	47000	5000	350	92	ug/L			1	6010C

1A-IN
 INORGANIC ANALYSIS DATA SHEET
 METALS - DISSOLVED

Client Sample ID: 54400-MW55D-0615

Lab Sample ID: 280-70279-6

Lab Name: TestAmerica Denver

Job No.: 280-70279-1

SDG ID.: _____

Matrix: Water

Date Sampled: 06/04/2015 15:10

Reporting Basis WET

Date Received: 06/05/2015 07:00

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Iron	85	100	85	22	ug/L	U		1	6010C

2A-IN
 CALIBRATION VERIFICATIONS
 METALS

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

ICV Source: ICP ICVH_00225 Concentration Units: ug/L

CCV Source: ICP CCVH_00398

Analyte	ICVH 280-282271/6 06/16/2015 11:44				CCVH 280-282271/22 06/16/2015 19:12				CCVH 280-282271/33 06/16/2015 19:42			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Iron	77900		80000	97	45300		50000	91	46100		50000	92
Sodium	41000		40000	103	249000		250000	100	248000		250000	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
 Italicized analytes were not requested for this sequence.

2A-IN
 CALIBRATION VERIFICATIONS
 METALS

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

ICV Source: ICP ICV_00035 Concentration Units: ug/L

CCV Source: ICP CCV_00045

Analyte	ICV 280-282271/7 06/16/2015 11:46				CCV 280-282271/23 06/16/2015 19:15				CCV 280-282271/34 06/16/2015 19:45			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	2060		2000	103	4870		5000	97	4730		5000	95
Iron	256		250	102	2370		2500	95	2330		2500	93
Magnesium	10600		10000	106	20100		20000	100	20800		20000	104
Potassium	20300		20000	102	51300		50000	103	51400		50000	103
Sodium	2100		2000	105	5360		5000	107	5290		5000	106

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
 Italicized analytes were not requested for this sequence.

2A-IN
 CALIBRATION VERIFICATIONS
 METALS

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

ICV Source: ICP LLCCV_01486 Concentration Units: ug/L

CCV Source: ICP LLCCV_01487

Analyte	ICVL 280-282271/8 06/16/2015 11:56				CCVL 280-282271/25 06/16/2015 19:19				CCVL 280-282271/36 06/16/2015 19:50			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	202		200	101	200		200	100	197	J	200	99
Iron	98.3	J	100	98	91.4	J	100	91	93.5	J	100	94
Magnesium	226		200	113	224		200	112	228		200	114
Potassium	3160		3000	105	3350		3000	112	3450		3000	115
Sodium	1060		1000	106	1220		1000	122	1230		1000	123

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
 Italicized analytes were not requested for this sequence.

2A-IN
 CALIBRATION VERIFICATIONS
 METALS

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

ICV Source: ICP ICVH_00225 Concentration Units: ug/L

CCV Source: ICP CCVH_00397

Analyte	ICVH 280-282103/6 06/15/2015 10:18				CCVH 280-282103/58 06/15/2015 15:40				CCVH 280-282103/69 06/15/2015 16:08			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Iron	81100		80000	101	50800		50000	102	51100		50000	102

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
 Italicized analytes were not requested for this sequence.

2A-IN
 CALIBRATION VERIFICATIONS
 METALS

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

ICV Source: ICP ICV_00034 Concentration Units: ug/L

CCV Source: ICP CCV_00044

Analyte	ICV 280-282103/7 06/15/2015 10:29				CCV 280-282103/59 06/15/2015 15:42				CCV 280-282103/70 06/15/2015 16:10			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Iron	242		250	97	2500		2500	100	2500		2500	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
 Italicized analytes were not requested for this sequence.

2A-IN
 CALIBRATION VERIFICATIONS
 METALS

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

ICV Source: ICP LLCCV_01486 Concentration Units: ug/L

CCV Source: ICP LLCCV_01486

Analyte	ICVL 280-282103/8 06/15/2015 10:32				CCVL 280-282103/61 06/15/2015 15:47				CCVL 280-282103/72 06/15/2015 16:15			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Iron	104		100	104	104		100	104	99.7	J	100	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
 Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Method: 6010C Instrument ID: MT_025
 Lab Sample ID: CRI 280-282271/12 Concentration Units: ug/L
 CRQL Check Standard Source: ICP CRI_00104

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	200	205		103	80-120
Iron	30.0	30.1	J	100	80-120
Magnesium	200	213		107	80-120
Potassium	1000	1050	J	105	80-120
Sodium	1000	1040		104	80-120

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Method: 6010C Instrument ID: MT_026
 Lab Sample ID: CRI 280-282103/13 Concentration Units: ug/L
 CRQL Check Standard Source: ICP CRI_00103

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Iron	30.0	30.0	J	100	80-120

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Concentration Units: ug/L

Analyte	RL	ICB 280-282271/11 06/16/2015 12:06		CCB 280-282271/24 06/16/2015 19:17		CCB 280-282271/35 06/16/2015 19:47		Found	C
		Found	C	Found	C	Found	C		
Calcium	200	140	U	140	U	140	U		
Iron	100	85	U	85	U	85	U		
Magnesium	200	40	U	40	U	40	U		
Potassium	3000	940	U	249	J	249	J		
Sodium	1000	350	U	181	J	156	J		

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Concentration Units: ug/L

Analyte	RL	ICB 280-282103/12 06/15/2015 10:49		CCB 280-282103/60 06/15/2015 15:45		CCB 280-282103/71 06/15/2015 16:13		Found	C
		Found	C	Found	C	Found	C		
Iron	100	85	U	85	U	85	U		

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Denver Job No.: 280-70279-1
SDG No.: _____
Concentration Units: ug/L Lab Sample ID: MB 280-281106/1-A
Instrument Code: MT_026 Batch No.: 282103

CAS No.	Analyte	Concentration	C	Q	Method
7439-89-6	Iron	85	U		6010C_DOD5

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Concentration Units: ug/L Lab Sample ID: MB 280-280888/1-A

Instrument Code: MT_025 Batch No.: 282271

CAS No.	Analyte	Concentration	C	Q	Method
7440-70-2	Calcium	140	U		6010C_DOD5
7439-89-6	Iron	85	U		6010C_DOD5
7439-95-4	Magnesium	40	U		6010C_DOD5
7440-09-7	Potassium	940	U		6010C_DOD5
7440-23-5	Sodium	169	J		6010C_DOD5

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Denver

Job No.: 280-70279-1

SDG No.: _____

Lab Sample ID: ICSA 280-282271/15

Instrument ID: MT_025

Lab File ID: 25061715C.asc

ICS Source: ICP ICSA_00105

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	500000	482350	96
Iron	200000	183210	92
Magnesium	500000	519750	104
Potassium		75.7	
Sodium		153	
<i>Aluminum</i>	<i>500000</i>	<i>510860</i>	<i>102</i>
<i>Antimony</i>		<i>4.64</i>	
<i>Barium</i>		<i>-0.500</i>	
<i>Beryllium</i>		<i>-0.0100</i>	
<i>Boron</i>		<i>0.130</i>	
<i>Cadmium</i>		<i>0.290</i>	
<i>Chromium</i>		<i>1.85</i>	
<i>Cobalt</i>		<i>-0.810</i>	
<i>Copper</i>		<i>0.290</i>	
<i>Lithium</i>		<i>9.62</i>	
<i>Molybdenum</i>		<i>-6.72</i>	
<i>Nickel</i>		<i>-0.300</i>	
<i>Selenium</i>		<i>17.3</i>	
<i>Silicon</i>		<i>6.44</i>	
<i>Silver</i>		<i>0.520</i>	
<i>SiO2</i>		<i>13.8</i>	
<i>Tin</i>		<i>0.390</i>	
<i>Titanium</i>		<i>-0.700</i>	
<i>Zinc</i>		<i>3.16</i>	

Calculations are performed before rounding to avoid round-off errors in calculated results.

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Denver

Job No.: 280-70279-1

SDG No.: _____

Lab Sample ID: ICSAB 280-282271/16

Instrument ID: MT_025

Lab File ID: 25061715C.asc

ICS Source: ICP ICSAB_00110

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Calcium	500000	484440	97
Iron	200000	183740	92
Magnesium	500000	515840	103
Potassium	50000	53560	107
Sodium	50000	51779	104
<i>Aluminum</i>	<i>500000</i>	<i>511100</i>	<i>102</i>
<i>Antimony</i>	<i>1000</i>	<i>961</i>	<i>96</i>
<i>Arsenic</i>	<i>2000</i>	<i>1995</i>	<i>100</i>
<i>Barium</i>	<i>500</i>	<i>519</i>	<i>104</i>
<i>Beryllium</i>	<i>500</i>	<i>497</i>	<i>99</i>
<i>Boron</i>	<i>2000</i>	<i>1908</i>	<i>95</i>
<i>Cadmium</i>	<i>1000</i>	<i>1042</i>	<i>104</i>
<i>Chromium</i>	<i>500</i>	<i>490</i>	<i>98</i>
<i>Cobalt</i>	<i>500</i>	<i>473</i>	<i>95</i>
<i>Copper</i>	<i>500</i>	<i>529</i>	<i>106</i>
<i>Lead</i>	<i>1000</i>	<i>920</i>	<i>92</i>
<i>Lithium</i>	<i>1000</i>	<i>1060</i>	<i>106</i>
<i>Manganese</i>	<i>500</i>	<i>507</i>	<i>101</i>
<i>Molybdenum</i>	<i>1000</i>	<i>941</i>	<i>94</i>
<i>Nickel</i>	<i>1000</i>	<i>945</i>	<i>94</i>
<i>Selenium</i>	<i>5000</i>	<i>4766</i>	<i>95</i>
<i>Silicon</i>	<i>10000</i>	<i>10347</i>	<i>103</i>
<i>Silver</i>	<i>1000</i>	<i>1121</i>	<i>112</i>
<i>SiO2</i>	<i>21400</i>	<i>22142</i>	<i>103</i>
<i>Strontium</i>	<i>1000</i>	<i>1005</i>	<i>100</i>
<i>Thallium</i>	<i>10000</i>	<i>8295</i>	<i>83</i>
<i>Tin</i>	<i>10000</i>	<i>8846</i>	<i>88</i>
<i>Titanium</i>	<i>1000</i>	<i>1000</i>	<i>100</i>
<i>Vanadium</i>	<i>500</i>	<i>522</i>	<i>104</i>
<i>Zinc</i>	<i>1000</i>	<i>983</i>	<i>98</i>

Calculations are performed before rounding to avoid round-off errors in calculated results.

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Denver

Job No.: 280-70279-1

SDG No.: _____

Lab Sample ID: ICSA 280-282103/15

Instrument ID: MT_026

Lab File ID: 26b061515.asc

ICS Source: ICP ICSA_00105

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Iron	200000	192750	96
Aluminum	500000	513090	103
Antimony		6.30	
Arsenic		2.36	
Barium		0.480	
Beryllium		0.160	
Boron		3.98	
Cadmium		0.380	
Calcium	500000	477570	96
Chromium		2.48	
Cobalt		-0.590	
Copper		3.52	
Lead		0.410	
Lithium		-2.99	
Magnesium	500000	516790	103
Molybdenum		-1.33	
Potassium		-260	
Selenium		-4.50	
Silicon		35.2	
Silver		-0.910	
Sodium		-37.5	
Thallium		1.98	
Tin		-1.37	
Titanium		0.100	
Vanadium		1.25	
Zinc		2.34	

Calculations are performed before rounding to avoid round-off errors in calculated results.

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Denver

Job No.: 280-70279-1

SDG No.: _____

Lab Sample ID: ICSAB 280-282103/16

Instrument ID: MT_026

Lab File ID: 26b061515.asc

ICS Source: ICP ICSAB_00109

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Iron	200000	190230	95
<i>Aluminum</i>	<i>500000</i>	<i>507720</i>	<i>102</i>
<i>Antimony</i>	<i>1000</i>	<i>942</i>	<i>94</i>
<i>Arsenic</i>	<i>2000</i>	<i>1906</i>	<i>95</i>
<i>Barium</i>	<i>500</i>	<i>524</i>	<i>105</i>
<i>Beryllium</i>	<i>500</i>	<i>485</i>	<i>97</i>
<i>Boron</i>	<i>2000</i>	<i>1879</i>	<i>94</i>
<i>Cadmium</i>	<i>1000</i>	<i>1031</i>	<i>103</i>
<i>Calcium</i>	<i>500000</i>	<i>472270</i>	<i>94</i>
<i>Chromium</i>	<i>500</i>	<i>482</i>	<i>96</i>
<i>Cobalt</i>	<i>500</i>	<i>459</i>	<i>92</i>
<i>Copper</i>	<i>500</i>	<i>526</i>	<i>105</i>
<i>Lead</i>	<i>1000</i>	<i>923</i>	<i>92</i>
<i>Lithium</i>	<i>1000</i>	<i>1002</i>	<i>100</i>
<i>Magnesium</i>	<i>500000</i>	<i>514080</i>	<i>103</i>
<i>Manganese</i>	<i>500</i>	<i>507</i>	<i>101</i>
<i>Molybdenum</i>	<i>1000</i>	<i>934</i>	<i>93</i>
<i>Nickel</i>	<i>1000</i>	<i>927</i>	<i>93</i>
<i>Potassium</i>	<i>50000</i>	<i>48858</i>	<i>98</i>
<i>Selenium</i>	<i>5000</i>	<i>4598</i>	<i>92</i>
<i>Silicon</i>	<i>10000</i>	<i>10747</i>	<i>107</i>
<i>Silver</i>	<i>1000</i>	<i>1082</i>	<i>108</i>
<i>Sodium</i>	<i>50000</i>	<i>50571</i>	<i>101</i>
<i>Strontium</i>	<i>1000</i>	<i>971</i>	<i>97</i>
<i>Thallium</i>	<i>10000</i>	<i>8372</i>	<i>84</i>
<i>Tin</i>	<i>10000</i>	<i>8981</i>	<i>90</i>
<i>Titanium</i>	<i>1000</i>	<i>1010</i>	<i>101</i>
<i>Vanadium</i>	<i>500</i>	<i>511</i>	<i>102</i>
<i>Zinc</i>	<i>1000</i>	<i>1008</i>	<i>101</i>

Calculations are performed before rounding to avoid round-off errors in calculated results.

5A-IN
 MATRIX SPIKE SAMPLE RECOVERY
 METALS

Client ID: 54400-MW55D-0615 MS Lab ID: 280-70279-6 MS
 Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Matrix: Water Concentration Units: ug/L
 % Solids: _____

Analyte	SSR C	Sample Result (SR) C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Calcium	143000	97000	50000	92	87-113		6010C
Iron	977	38 J	1000	94	87-115		6010C
Magnesium	70200	19000	50000	102	85-113		6010C
Potassium	54600	1400 J	50000	107	86-114		6010C
Sodium	97800	47000	50000	101	87-115		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

5A-IN
 MATRIX SPIKE SAMPLE RECOVERY
 METALS - DISSOLVED

Client ID: 54400-MW55D-0615 MS Lab ID: 280-70279-6 MS
 Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Matrix: Water Concentration Units: ug/L
 % Solids: _____

Analyte	SSR C	Sample Result (SR) C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Iron	969	85 U	1000	97	87-115		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

5A-IN
 MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
 METALS

Client ID: 54400-MW55D-0615 MSD Lab ID: 280-70279-6 MSD
 Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Matrix: Water Concentration Units: ug/L
 % Solids: _____

Analyte	(SDR) C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Calcium	143000	50000	93	87-113	0	20		6010C
Iron	978	1000	94	87-115	0	20		6010C
Magnesium	70700	50000	103	85-113	1	20		6010C
Potassium	54400	50000	106	86-114	0	20		6010C
Sodium	97800	50000	101	87-115	0	20		6010C

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

5A-IN
 MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
 METALS - DISSOLVED

Client ID: 54400-MW55D-0615 MSD Lab ID: 280-70279-6 MSD
 Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Matrix: Water Concentration Units: ug/L
 % Solids: _____

Analyte	(SDR) C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Iron	980	1000	98	87-115	1	20		6010C

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

5B-IN
 POST DIGESTION SPIKE SAMPLE RECOVERY
 METALS

Client ID: 54400-MW55D-0615 PDS

Lab ID: 280-70279-6 PDS

Lab Name: TestAmerica Denver

Job No.: 280-70279-1

SDG No.: _____

Matrix: Water

Concentration Units: ug/L

Analyte	SSR C	Sample Result (SR) C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Calcium	112000	97000	20000	77	80-120	J	6010C
Iron	954	38	1000	92	80-120		6010C
Magnesium	38400	19000	20000	97	80-120		6010C
Potassium	21900	1400	20000	103	80-120		6010C
Sodium	66700	47000	20000	98	80-120		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

5B-IN
 POST DIGESTION SPIKE SAMPLE RECOVERY
 METALS - DISSOLVED

Client ID: 54400-MW55D-0615 PDS

Lab ID: 280-70279-6 PDS

Lab Name: TestAmerica Denver

Job No.: 280-70279-1

SDG No.: _____

Matrix: Water

Concentration Units: ug/L

Analyte	SSR C	Sample Result (SR) C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Iron	990	85 U	1000	99	80-120		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

7A-IN
 LAB CONTROL SAMPLE
 METALS - TOTAL RECOVERABLE

Lab ID: LCS 280-281106/2-A

Lab Name: TestAmerica Denver

Job No.: 280-70279-1

Sample Matrix: Water

LCS Source: ICP SPK 3A_00097

Analyte	Water (ug/L)							
	True	Found	C	%R	Limits		Q	Method
Iron	1000	1000		100	87	115		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 280-280888/2-A

Lab Name: TestAmerica Denver

Job No.: 280-70279-1

Sample Matrix: Water

LCS Source: ICP SPK 3A_00097

Analyte	Water (ug/L)							
	True	Found	C	%R	Limits		Q	Method
Calcium	50000	48600		97	87	113		6010C
Iron	1000	946		95	87	115		6010C
Magnesium	50000	51200		102	85	113		6010C
Potassium	50000	52600		105	86	114		6010C
Sodium	50000	52400		105	87	115		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 280-70279-6

SDG No: _____

Lab Name: TestAmerica Denver

Job No: 280-70279-1

Matrix: Water

Concentration Units: ug/L

Analyte	Initial Sample		Serial		% Difference	Q	Method
	Result (I)	C	Result (S)	C			
Calcium	97000		96900		0.04	D	6010C
Iron	38	J	430	U	NC		6010C
Magnesium	19000		20100		NC	D	6010C
Potassium	1400	J	2250	J	NC	D	6010C
Sodium	47000		46700		NC	D	6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
 ICP-AES AND ICP-MS SERIAL DILUTIONS
 METALS - DISSOLVED

Lab ID: 280-70279-6

SDG No: _____

Lab Name: TestAmerica Denver

Job No: 280-70279-1

Matrix: Water

Concentration Units: ug/L

Analyte	Initial Sample		Serial		% Difference	Q	Method
	Result (I)	C	Result (S)	C			
Iron	85	U	430	U	NC		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Denver

Job Number: 280-70279-1

SDG Number: _____

Matrix: Water

Instrument ID: MT_025

Method: 6010C

DL Date: 02/16/2014 00:00

Prep Method: 3010A

Analyte	Wavelength/ Mass	LOQ (ug/L)	DL (ug/L)
Calcium	317.9	1000	34.5
Iron	259.9	100	22
Magnesium	279	500	10.7
Potassium	766.4	3000	237
Sodium	589.5	5000	91.6

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Denver

Job Number: 280-70279-1

SDG Number: _____

Matrix: Water

Instrument ID: MT_025

Method: 6010C

XMDL Date: 03/13/2014 10:04

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Calcium		200	34.5
Iron		100	22
Magnesium		200	10.7
Potassium		3000	237
Sodium		1000	91.6

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Denver

Job Number: 280-70279-1

SDG Number: _____

Matrix: Water

Instrument ID: MT_026

Method: 6010C

DL Date: 02/16/2014 00:00

Prep Method: 3005A

Analyte	Wavelength/ Mass	LOQ (ug/L)	DL (ug/L)
Iron	259.9	100	22

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Denver Job Number: 280-70279-1
SDG Number: _____
Matrix: Water Instrument ID: MT_026
Method: 6010C XMDL Date: 03/13/2014 10:04

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Iron		100	22

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Denver

Job Number: 280-70279-1

SDG No.: _____

ICP-AES Instrument ID: MT_025

Date: 06/15/2015

Analyte	Wave Length	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K
Aluminum	167.079													0.001201	
Aluminum	309.271														
Antimony	206.833		-0.000024						-0.000023			0.012085		0.00005	
Arsenic	189.042		-0.000043									-0.006918		-0.000020	
Barium	455.403														
Beryllium	313.042														
Bismuth	223.061		-0.000012			-0.001206			-0.000016			0.001346		0.000278	
Boron	208.959														
Cadmium	228.802			0.013817		-0.000082					0.000036			-0.000013	
Calcium	317.933										-0.000132				
Chromium	205.552						-0.001150							0.000010	
Cobalt	228.616					0.000052						0.000001			
Copper	324.754													0.000010	
Iron	259.940										0.070287				
Iron	271.441										0.076500				
Lead	220.353		-0.000100					-0.000040	0.000004		-0.000553		0.001488	0.000021	
Lithium	670.784								0.000013						

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Denver

Job Number: 280-70279-1

SDG No.: _____

ICP-AES Instrument ID: MT_025

Date: 06/15/2015

Analyte	Wave Length	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K
Magnesium	279.079													0.000149	
Manganese	257.610		0.000001											0.000009	
Molybdenum	202.030														
Nickel	231.604						-0.000094		-0.000002		0.000105			0.000005	
Phosphorus	178.284		0.000002												
Potassium	766.490														
Selenium	196.090		-0.000007						-0.000007					0.000005	
Silicon	288.158											-0.013955			
Silver	328.068														
Sodium	589.592														
Sodium	818.326														
Strontium	407.771								0.000141						
Sulfur	182.034		-0.000003						-0.000102						
Thallium	190.856		0.000004								0.004416	0.000274		-0.000024	
Thorium	283.730									-0.000514		-0.000153		0.000802	
Tin	189.989														
Titanium	334.904								0.000005			0.000255			

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Denver Job Number: 280-70279-1

SDG No.: _____

ICP-AES Instrument ID: MT_025 Date: 06/15/2015

Analyte	Wave Length	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K
Uranium	370.15 2				0.000099				-0.000070			-0.001869		-0.000333	
Vanadium	292.40 2											-0.002416		0.000009	
Zinc	206.20 0		0.000002					-0.000075				-0.000468		0.000007	
Zirconium	339.19 8													-0.000029	

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Denver Job Number: 280-70279-1

SDG No.: _____

ICP-AES Instrument ID: MT_025 Date: 06/15/2015

Analyte	Wave Length	Li	Mg	Mn	Mo	Na	Ni	Pb	S	Sb	Se	Si	SiO2	Sn	Sr
Aluminum	309.27 1		0.001655												
Aluminum	167.07 9														
Antimony	206.83 3				-0.021002		-0.000024					0.000031		0.000093	
Arsenic	189.04 2		-0.000003		-0.000744										
Barium	455.40 3														
Beryllium	313.04 2														
Bismuth	223.06 1													-0.001095	
Boron	208.95 9				0.026234										
Cadmium	228.80 2														
Calcium	317.93 3														
Chromium	205.55 2				0.000377		0.000035								
Cobalt	228.61 6			-0.000001	-0.000914		0.000125								
Copper	324.75 4				0.000377										
Iron	259.94 0		-0.000894												
Iron	271.44 1		0.000330												
Lead	220.35 3				-0.001752		0.000027					0.000563			
Lithium	670.78 4		0.000001												

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Denver Job Number: 280-70279-1

SDG No.: _____

ICP-AES Instrument ID: MT_025 Date: 06/15/2015

Analyte	Wave Length	Li	Mg	Mn	Mo	Na	Ni	Pb	S	Sb	Se	Si	SiO2	Sn	Sr
Magnesium	279.079			-0.004762											
Manganese	257.610														
Molybdenum	202.030														
Nickel	231.604				0.000080										
Phosphorus	178.284				-0.001297										
Potassium	766.490														
Selenium	196.090			0.000474											
Silicon	288.158				-0.001696										
Silver	328.068			0.000114	-0.000424										
Sodium	818.326														
Sodium	589.592														
Strontium	407.771														
Sulfur	182.034			-0.002851	-0.003963										
Thallium	190.856			0.000104											
Thorium	283.730		-0.000008		0.000266		0.000116								
Tin	189.989														
Titanium	334.904		0.000001		0.000700										

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Denver Job Number: 280-70279-1

SDG No.: _____

ICP-AES Instrument ID: MT_025 Date: 06/15/2015

Analyte	Wave Length	Li	Mg	Mn	Mo	Na	Ni	Pb	S	Sb	Se	Si	SiO2	Sn	Sr
Uranium	370.15 2														
Vanadium	292.40 2		-0.000020	-0.000132	-0.001641										
Zinc	206.20 0				0.000123										
Zirconium	339.19 8				0.000270										

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Denver Job Number: 280-70279-1

SDG No.: _____

ICP-AES Instrument ID: MT_025 Date: 06/15/2015

Analyte	Wave Length	Th	Ti	Tl	U	V	Zn	Zr							
Aluminum	167.079														
Aluminum	309.271														
Antimony	206.833		0.000329		-0.002400	0.000070		-0.000720							
Arsenic	189.042	-0.000781													
Barium	455.403							0.001356							
Beryllium	313.042		-0.000468			0.000297									
Bismuth	223.061		-		-0.003000										
Boron	208.959														
Cadmium	228.802				-0.000172										
Calcium	317.933	0.000027													
Chromium	205.552	0.002490	-0.000200		-0.000210	0.000270		-0.000710							
Cobalt	228.616		0.002060		0.000180										
Copper	324.754	0.001851	-0.000200		-0.000990	-0.000414		-0.001453							
Iron	259.940					-0.209500									
Iron	271.441					-0.209000	-0.033000	-0.033							
Lead	220.353		-0.000550		0.000725			-0.000255							
Lithium	670.784														

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Denver Job Number: 280-70279-1

SDG No.: _____

ICP-AES Instrument ID: MT_025 Date: 06/15/2015

Analyte	Wave Length	Th	Ti	Tl	U	V	Zn	Zr							
Magnesium	279.079	-0.016400	0.000196		-0.002700										
Manganese	257.610	-0.000636			0.000099										
Molybdenum	202.030				-0.000094										
Nickel	231.604														
Phosphorus	178.284				0.000030										
Potassium	766.490														
Selenium	196.090	-0.0000432		-0.000481	-0.000758										
Silicon	288.158														
Silver	328.068	0.001040			0.001028			0.005219							
Sodium	589.592														
Sodium	818.326														
Strontium	407.771														
Sulfur	182.034	0.000409				-0.001026									
Thallium	190.856	-0.000005	-0.001115		0.000038	0.002992									
Thorium	283.730				0.023			0.023447							
Tin	189.989	0.000936	-0.000188		0.000171										
Titanium	334.904	0.005187			-0.000731										

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Denver Job Number: 280-70279-1

SDG No.: _____

ICP-AES Instrument ID: MT_025 Date: 06/15/2015

Analyte	Wave Length	Th	Ti	Tl	U	V	Zn	Zr							
Uranium	370.15 2		0.007353												
Vanadium	292.40 2	0.001370	0.000262		-0.001180										
Zinc	206.20 0		0.000066												
Zirconium	339.19 8	0.061600			-0.000206										

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Denver Job Number: 280-70279-1

SDG No.: _____

ICP-AES Instrument ID: MT_026 Date: 01/27/2015

Analyte	Wave Length	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K
Aluminum	167.079													0.000998	
Aluminum	309.271														
Antimony	206.833		0.000023						0.000004			0.010738		0.000039	
Arsenic	189.042		-0.000021									-0.005618		-0.000022	
Barium	455.403														
Beryllium	313.042														
Bismuth	223.061										0.000142	0.001465		0.000123	
Boron	208.959														
Cadmium	228.802			0.005254							0.000013				
Calcium	317.933														
Chromium	205.552						-0.001752								
Cobalt	228.616					-0.000084									
Copper	324.754														
Iron	259.940										0.109000				
Iron	271.441										0.095380				
Lead	220.353		-0.000054										0.000204	0.000022	
Lithium	670.784								0.000022						

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Denver Job Number: 280-70279-1

SDG No.: _____

ICP-AES Instrument ID: MT_026 Date: 01/27/2015

Analyte	Wave Length	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K
Magnesium	279.079													-0.000147	
Manganese	257.610														
Molybdenum	202.030														
Nickel	231.604													-0.000003	
Phosphorus	178.284														
Potassium	766.490														
Selenium	196.090		0.000002						-0.000023					0.000019	
Silicon	288.158											-0.004508			
Silver	328.068														
Sodium	589.592														
Sodium	818.326														
Strontium	407.771								0.000222						
Sulfur	182.034														
Thallium	190.856										0.002955	0.000241		-0.000006	
Thorium	283.730	-0.000001	-0.000004							-0.000536		0.000136		0.000799	
Tin	189.989														
Titanium	334.904								0.000005			0.000118			

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Denver Job Number: 280-70279-1

SDG No.: _____

ICP-AES Instrument ID: MT_026 Date: 01/27/2015

Analyte	Wave Length	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K
Uranium	370.15 2				0.001698				-0.000020			0.000664		0.000166	
Vanadium	292.40 2											-0.006213		0.000005	
Zinc	206.20 0						-0.000065	-0.001327				-0.001110			
Zirconium	339.19 8													-0.000035	

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Denver Job Number: 280-70279-1

SDG No.: _____

ICP-AES Instrument ID: MT_026 Date: 01/27/2015

Analyte	Wave Length	Li	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Se	Si	SiO2	Sn	Sr
Aluminum	309.27 1		0.003500												
Aluminum	167.07 9														
Antimony	206.83 3				-0.007136										
Arsenic	189.04 2														
Barium	455.40 3														
Beryllium	313.04 2														
Bismuth	223.06 1														
Boron	208.95 9				0.039069										
Cadmium	228.80 2														
Calcium	317.93 3														
Chromium	205.55 2				0.000100		0.000059								
Cobalt	228.61 6				-0.000834		0.000132								
Copper	324.75 4														
Iron	259.94 0														
Iron	271.44 1														
Lead	220.35 3		0.000002		-0.001578		0.000138				0.000013	0.000120			
Lithium	670.78 4		0.000004												

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Denver Job Number: 280-70279-1

SDG No.: _____

ICP-AES Instrument ID: MT_026 Date: 01/27/2015

Analyte	Wave Length	Li	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Se	Si	SiO2	Sn	Sr
Magnesium	279.079														
Manganese	257.610														
Molybdenum	202.030														
Nickel	231.604														
Phosphorus	178.284														
Potassium	766.490														
Selenium	196.090			0.000339											
Silicon	288.158				-0.004145									0.002182	
Silver	328.068				-0.000418										
Sodium	818.326														
Sodium	589.592														
Strontium	407.771														
Sulfur	182.034			0.001236	-0.010067										
Thallium	190.856			0.002661	-0.002052										
Thorium	283.730		-0.000007		0.000415		0.000121								
Tin	189.989														
Titanium	334.904		0.000001		0.000514										

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Denver Job Number: 280-70279-1

SDG No.: _____

ICP-AES Instrument ID: MT_026 Date: 01/27/2015

Analyte	Wave Length	Li	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Se	Si	SiO2	Sn	Sr
Uranium	370.15 2				-0.000575										
Vanadium	292.40 2			-0.000218											
Zinc	206.20 0														
Zirconium	339.19 8				0.001065							0.000011			

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Denver Job Number: 280-70279-1

SDG No.: _____

ICP-AES Instrument ID: MT_026 Date: 01/27/2015

Analyte	Wave Length	Th	Ti	Tl	U	V	Zn	Zr							
Aluminum	167.079														
Aluminum	309.271														
Antimony	206.833		0.000051		-0.001531			-0.001489							
Arsenic	189.042					-0.000443									
Barium	455.403							0.001330							
Beryllium	313.042		-0.000536												
Bismuth	223.061	0.000436	-0.010632		-0.003419										
Boron	208.959														
Cadmium	228.802														
Calcium	317.933	-0.015295													
Chromium	205.552				0.000035										
Cobalt	228.616		0.001936												
Copper	324.754	0.001563	-0.000492					-0.000850							
Iron	259.940					0.000509		0.000261							
Iron	271.441					-0.456000		-0.130924							
Lead	220.353		-0.000237		0.000854										
Lithium	670.784	-0.005530			-0.012549										

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Denver Job Number: 280-70279-1

SDG No.: _____

ICP-AES Instrument ID: MT_026 Date: 01/27/2015

Analyte	Wave Length	Th	Ti	Tl	U	V	Zn	Zr							
Magnesium	279.079	-0.009958			-0.011507										
Manganese	257.610	-0.000278													
Molybdenum	202.030														
Nickel	231.604														
Phosphorus	178.284														
Potassium	766.490														
Selenium	196.090	-0.000016			-0.001702										
Silicon	288.158														
Silver	328.068	-0.000878			0.001221			0.005024							
Sodium	589.592														
Sodium	818.326														
Strontium	407.771														
Sulfur	182.034														
Thallium	190.856		-0.001205		-0.000267	-0.014918									
Thorium	283.730				0.022314	-0.037303		0.011843							
Tin	189.989		-0.003356												
Titanium	334.904	0.004436			-0.000370										

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Denver Job Number: 280-70279-1

SDG No.: _____

ICP-AES Instrument ID: MT_026 Date: 01/27/2015

Analyte	Wave Length	Th	Ti	Tl	U	V	Zn	Zr							
Uranium	370.15 2	-0.000357	0.005820												
Vanadium	292.40 2	0.001157	0.000902		-0.000541										
Zinc	206.20 0														
Zirconium	339.19 8	0.025650													

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Denver

Job No: 280-70279-1

SDG No.: _____

Instrument ID: MT_025

Date: 03/30/2015 12:02

Analyte	Integ. Time (Sec.)	Concentration (mg/L)	Method
Calcium		1000	6010C
Iron		2000	6010C
Magnesium		1500	6010C
Potassium		500	6010C
Sodium		10000	6010C

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Denver

Job No: 280-70279-1

SDG No.: _____

Instrument ID: MT_026

Date: 04/20/2015 11:42

Analyte	Integ. Time (Sec.)	Concentration (mg/L)	Method
Iron		2000	6010C

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Prep Method: 3010A

Lab Sample	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 280-280888/1-A	06/10/2015 14:45	280888		50	50
LCS 280-280888/2-A	06/10/2015 14:45	280888		50	50
280-70279-6	06/10/2015 14:45	280888		50	50
280-70279-6 MS	06/10/2015 14:45	280888		50	50
280-70279-6 MSD	06/10/2015 14:45	280888		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Prep Method: 3005A

Lab Sample	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 280-281106/1-A	06/12/2015 09:00	281106		50	50
LCS 280-281106/2-A	06/12/2015 09:00	281106		50	50
280-70279-6	06/12/2015 09:00	281106		50	50
280-70279-6 MS	06/12/2015 09:00	281106		50	50
280-70279-6 MSD	06/12/2015 09:00	281106		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Instrument ID: MT_025 Method: 6010C

Start Date: 06/16/2015 11:30 End Date: 06/16/2015 22:22

Lab Sample ID	D / F	T y p e	Time	Analytes															
				C a	F e	K	M g	N a											
ICIS 280-282271/1	1		11:30	X	X	X	X	X											
IC 280-282271/2			11:32	X	X	X	X	X											
IC 280-282271/3			11:34	X	X	X	X	X											
ZZZZZZ			11:37																
ZZZZZZ			11:40																
ICVH 280-282271/6	1		11:44	X	X	X	X	X											
ICV 280-282271/7	1		11:46	X	X	X	X	X											
ICVL 280-282271/8	1		11:56	X	X	X	X	X											
CCVH 280-282271/9			12:01																
CCV 280-282271/10			12:03																
ICB 280-282271/11	1		12:06	X	X	X	X	X											
CRI 280-282271/12	1		12:08	X	X	X	X	X											
CRI 280-282271/13			12:21																
ZZZZZZ			12:25																
ICSA 280-282271/15	1		12:36	X	X	X	X	X											
ICSAB 280-282271/16	1		12:44	X	X	X	X	X											
LRA 280-282271/17			12:46																
CCVH 280-282271/18			12:49																
CCV 280-282271/19			12:52																
CCB 280-282271/20			12:54																
CCVL 280-282271/21			12:57																
CCVH 280-282271/22	1		19:12	X	X	X	X	X											
CCV 280-282271/23	1		19:15	X	X	X	X	X											
CCB 280-282271/24	1		19:17	X	X	X	X	X											
CCVL 280-282271/25	1		19:19	X	X	X	X	X											
MB 280-280888/1-A	1	T	19:22	X	X	X	X	X											
LCS 280-280888/2-A	1	T	19:28	X	X	X	X	X											
280-70279-6	1	T	19:30	X	X	X	X	X											
280-70279-6 SD	5	T	19:33	X	X	X	X	X											
280-70279-6 MS	1	T	19:35	X	X	X	X	X											
280-70279-6 MSD	1	T	19:38	X	X	X	X	X											
280-70279-6 PDS	1	T	19:40	X	X	X	X	X											
CCVH 280-282271/33	1		19:42	X	X	X	X	X											
CCV 280-282271/34	1		19:45	X	X	X	X	X											
CCB 280-282271/35	1		19:47	X	X	X	X	X											
CCVL 280-282271/36	1		19:50	X	X	X	X	X											
ZZZZZZ			19:52																
ZZZZZZ			19:55																
ZZZZZZ			19:57																
ZZZZZZ			20:00																
ZZZZZZ			20:02																
ZZZZZZ			20:05																

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Instrument ID: MT_025 Method: 6010C

Start Date: 06/16/2015 11:30 End Date: 06/16/2015 22:22

Lab Sample ID	D / F	T y p e	Time	Analytes															
				C a	F e	K	M g	N a											
ZZZZZZ			20:07																
ZZZZZZ			20:10																
ZZZZZZ			20:12																
CCVH 280-282271/46			20:15																
CCV 280-282271/47			20:17																
CCB 280-282271/48			20:20																
CCVL 280-282271/49			20:22																
ZZZZZZ			20:25																
ZZZZZZ			20:28																
ZZZZZZ			20:30																
ZZZZZZ			20:33																
CCVH 280-282271/54			20:36																
CCV 280-282271/55			20:38																
CCB 280-282271/56			20:41																
CCVL 280-282271/57			20:43																
ZZZZZZ			20:46																
ZZZZZZ			20:48																
ZZZZZZ			20:50																
ZZZZZZ			20:53																
ZZZZZZ			20:56																
ZZZZZZ			20:58																
CCVH 280-282271/64			21:00																
CCV 280-282271/65			21:03																
CCB 280-282271/66			21:05																
ZZZZZZ			21:08																
ZZZZZZ			21:10																
ZZZZZZ			21:13																
ZZZZZZ			21:16																
ZZZZZZ			21:18																
ZZZZZZ			21:21																
CCVH 280-282271/73			21:24																
CCV 280-282271/74			21:26																
CCB 280-282271/75			21:29																
ZZZZZZ			21:31																
ZZZZZZ			21:34																
ZZZZZZ			21:36																
ZZZZZZ			21:38																
ZZZZZZ			21:41																
ZZZZZZ			21:44																
ZZZZZZ			21:46																
CCVH 280-282271/83			21:48																
CCV 280-282271/84			21:51																

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Instrument ID: MT_026 Method: 6010C

Start Date: 06/15/2015 10:05 End Date: 06/15/2015 16:51

Lab Sample ID	D / F	T y p e	Time	Analytes															
				F	e														
ZZZZZZ			15:01																
ZZZZZZ			15:04																
ZZZZZZ			15:06																
ZZZZZZ			15:09																
CCVH 280-282103/47			15:11																
CCV 280-282103/48			15:14																
CCB 280-282103/49			15:16																
ZZZZZZ			15:19																
ZZZZZZ			15:22																
ZZZZZZ			15:24																
ZZZZZZ			15:27																
ZZZZZZ			15:29																
ZZZZZZ			15:32																
ZZZZZZ			15:34																
ZZZZZZ			15:37																
CCVH 280-282103/58	1		15:40	X															
CCV 280-282103/59	1		15:42	X															
CCB 280-282103/60	1		15:45	X															
CCVL 280-282103/61	1		15:47	X															
MB 280-281106/1-A	1	R	15:50	X															
LCS 280-281106/2-A	1	R	15:53	X															
280-70279-6	1	D	15:55	X															
280-70279-6 SD	5	D	15:58	X															
280-70279-6 MS	1	D	16:00	X															
280-70279-6 MSD	1	D	16:03	X															
280-70279-6 PDS	1	D	16:05	X															
CCVH 280-282103/69	1		16:08	X															
CCV 280-282103/70	1		16:10	X															
CCB 280-282103/71	1		16:13	X															
CCVL 280-282103/72	1		16:15	X															
ZZZZZZ			16:18																
ZZZZZZ			16:21																
ZZZZZZ			16:23																
ZZZZZZ			16:26																
ZZZZZZ			16:28																
ZZZZZZ			16:31																
ZZZZZZ			16:33																
ZZZZZZ			16:36																
ZZZZZZ			16:38																
ZZZZZZ			16:41																
CCVH 280-282103/83			16:43																
CCV 280-282103/84			16:46																

Sample Name: ICIS Acquired: 6/16/2015 10:41:43 Type: Cal
 Method: 6500_025(v52) Mode: IR Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-0.0136	.00043	-0.0146	-0.0053	.00110	.00563	-0.0270	-0.0165	.00522	.00018	-0.0032	-0.0006
Stddev	.00008	.00011	.00030	.00004	.00019	.00200	.00027	.00012	.00006	.00017	.00009	.00026
%RSD	5.6916	26.005	20.253	6.9639	17.533	35.444	10.133	7.4336	1.0647	92.864	29.112	406.71
#1	-0.0130	.00035	-0.0125	-0.0050	.00124	.00705	-0.0251	-0.0174	.00518	.00030	-0.0038	.00012
#2	-0.0141	.00051	-0.0167	-0.0055	.00097	.00422	-0.0289	-0.0156	.00526	.00006	-0.0025	-0.0025
Elem	Cu3247	Fe2599	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Na8183	Ni2316	P_1782
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00335	.00111	.00037	-0.00404	-0.00153	.00011	.00005	.00016	.00514	-0.00373	-0.00031	.00002
Stddev	.00002	.00004	.00023	.00011	.00158	.00002	.00002	.00003	.00054	.00046	.00012	.00019
%RSD	.67281	3.9005	61.532	2.7325	103.19	13.850	41.340	21.623	10.488	12.346	37.426	954.44
#1	.00336	.00108	.00053	-0.00412	-0.00041	.00012	.00003	.00014	.00552	-0.00340	-0.00023	-0.0011
#2	.00333	.00114	.00021	-0.00396	-0.00265	.00010	.00006	.00019	.00476	-0.00405	-0.00039	.00015
Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-0.0021	.00008	.00023	.00027	.00153	.00153	-0.00003	-0.01312	-0.00046	-0.00085	.00000	-0.00023
Stddev	.00000	.00005	.00002	.00012	.00021	.00021	.00005	.00024	.00003	.00010	.00006	.00003
%RSD	.11179	62.557	10.809	45.054	13.773	13.773	200.53	1.8324	5.5674	12.280	1315.6	12.990
#1	-0.0021	.00004	.00024	.00019	.00168	.00168	-0.00006	-0.01295	-0.00048	-0.00093	-0.00004	-0.00025
#2	-0.0021	.00011	.00021	.00036	.00138	.00138	.00001	-0.01329	-0.00044	-0.00078	.00005	-0.00021
Elem	V_2924	Zn2062	Zr3391									
Units	Cts/S	Cts/S	Cts/S									
Avg	-0.00078	.00003	-0.00018									
Stddev	.00004	.00001	.00042									
%RSD	4.9106	35.164	230.61									
#1	-0.00076	.00002	.00012									
#2	-0.00081	.00004	-0.00048									
Int. Std.	Y_2243	Y_3600	Y_3774									
Units	Cts/S	Cts/S	Cts/S									
Avg	5438.4	67818.	8409.3									
Stddev	9.0	62.	55.3									
%RSD	.16625	.09158	.65809									
#1	5444.8	67774.	8370.2									
#2	5432.0	67862.	8448.4									

Sample Name: ICAL1 Acquired: 6/16/2015 10:44:05 Type: Cal
 Method: 6500_025(v52) Mode: IR Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.18499	.21598	.09819	.27151	5.1314	7.6022	1.7539	1.5845	.82601	.93959	.30486	.79471	2.6220
Stddev	.00014	.00066	.00049	.00195	.0002	.0089	.0016	.0080	.00108	.00100	.00034	.00070	.0030
%RSD	.07340	.30331	.49503	.71642	.00431	.11711	.08915	.50558	.13096	.10653	.11217	.08767	.11330

#1	.18490	.21551	.09784	.27013	5.1313	7.5960	1.7528	1.5788	.82525	.93888	.30462	.79421	2.6199
#2	.18509	.21644	.09853	.27288	5.1316	7.6085	1.7550	1.5902	.82678	.94030	.30511	.79520	2.6241

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	Sb2068	Se1960	Si2881	SiO2	Sn1899
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.7220	.78103	1.1414	.52830	1.5881	.65955	.10218	.40237	.20270	.09546	.23490	.23490	.23963
Stddev	.0006	.00045	.0014	.00133	.0008	.00239	.00043	.00086	.00121	.00038	.00081	.00081	.00155
%RSD	.03223	.05785	.12453	.25118	.04891	.36197	.41886	.21396	.59879	.39544	.34492	.34492	.64872

#1	1.7224	.78135	1.1424	.52736	1.5886	.65786	.10188	.40176	.20184	.09519	.23432	.23432	.23853
#2	1.7216	.78071	1.1404	.52924	1.5875	.66124	.10248	.40298	.20356	.09572	.23547	.23547	.24073

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	9.4855	.28449	.20044	.20305	.02761	.28576
Stddev	.0003	.00078	.00133	.00045	.00007	.00008
%RSD	.00279	.27491	.66469	.22030	.25496	.02798

#1	9.4857	.28504	.19950	.20336	.02756	.28581
#2	9.4853	.28394	.20139	.20273	.02766	.28570

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5370.4	66141.	8557.5
Stddev	10.0	204.	23.5
%RSD	.18632	.30800	.27445

#1	5377.5	65997.	8574.1
#2	5363.3	66285.	8540.9

Sample Name: ICAL2 Acquired: 6/16/2015 10:46:29 Type: Cal
 Method: 6500_025(v52) Mode: IR Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Al3092	Bi2230	Fe2714	Na8183	S_1820	Th2837	U_3701
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3.2519	.26118	.66746	2.2977	.37714	.49864	.12765
Stddev	.0162	.00187	.00508	.0095	.00305	.00065	.00041
%RSD	.49930	.71415	.76163	.41480	.80906	.13109	.31813
#1	3.2404	.26250	.66386	2.2909	.37930	.49818	.12736
#2	3.2633	.25986	.67105	2.3044	.37498	.49910	.12794
Int. Std.	Y_2243	Y_3600	Y_3774				
Units	Cts/S	Cts/S	Cts/S				
Avg	5187.2	64773.	8580.8				
Stddev	55.5	22.	140.7				
%RSD	1.0697	.03321	1.6392				
#1	5226.5	64788.	8680.3				
#2	5148.0	64757.	8481.4				

Sample Name: s1-3333639 Acquired: 6/16/2015 10:49:09 Type: QC

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0167	1.0212	2.0031	1.0088	.99763	.99953	-.00631	9.9968	1.0061	1.0071	1.0039	1.0104	5.0591
Stddev	.0000	.0021	.0040	.0001	.00272	.00196	.00112	.0152	.0006	.0011	.0006	.0023	.0506
%RSD	.00091	.20593	.19822	.01092	.27229	.19616	17.781	.15190	.06027	.10979	.06188	.22708	1.0006

#1	1.0167	1.0227	2.0003	1.0088	.99571	.99814	-.00710	9.9861	1.0065	1.0079	1.0035	1.0088	5.0949
#2	1.0167	1.0197	2.0059	1.0087	.99956	1.0009	-.00552	10.008	1.0057	1.0063	1.0044	1.0121	5.0233

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	100.97	2.0113	40.608	1.0058	1.0009	10.246	10.382	1.0083	2.0197	2.0154	.01210	2.0301	2.0278
Stddev	.17	.0000	.114	.0018	.0004	.009	.072	.0000	.0074	.0001	.00021	.0037	.0039
%RSD	.17182	.00102	.28069	.17472	.04016	.08971	.69161	.00233	.36714	.00313	1.7536	.18295	.19072

#1	101.09	2.0113	40.528	1.0046	1.0012	10.240	10.331	1.0083	2.0145	2.0153	.01195	2.0275	2.0305
#2	100.84	2.0114	40.689	1.0070	1.0006	10.253	10.433	1.0083	2.0250	2.0154	.01225	2.0327	2.0251

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass					
Value													
Range													

Elem	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.025	21.453	2.0227	.99895	-.00861	1.0061	2.0208	-.00491	1.0070	1.0102	1.0000
Stddev	.074	.158	.0020	.00209	.00181	.0040	.0035	.01150	.0024	.0045	.0076
%RSD	.73815	.73815	.09791	.20874	20.977	.39981	.17339	234.20	.23365	.44672	.75506

#1	10.077	21.565	2.0213	.99747	-.00989	1.0033	2.0233	.00322	1.0053	1.0070	1.0054
#2	9.9723	21.341	2.0241	1.0004	-.00734	1.0090	2.0183	-.01304	1.0086	1.0134	.99470

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5294.2	64924.	8305.9
Stddev	6.3	64.	27.4
%RSD	.11912	.09916	.33003

#1	5289.7	64970.	8286.5
#2	5298.6	64879.	8325.3

Sample Name: s2-3331887 Acquired: 6/16/2015 10:51:33 Type: QC

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00432	100.82	-.00138	.00410	.00143	.00054	1.9761	.03351	-.00004	-.00153	.00131	.01390	100.36
Stddev	.00064	.69	.00225	.00052	.00027	.00006	.0121	.00245	.00005	.00014	.00036	.00018	.25
%RSD	14.728	.68658	163.48	12.571	19.123	10.949	.61450	7.3234	125.56	9.2087	27.928	1.2844	.25318

#1	.00387	100.34	-.00297	.00373	.00124	.00058	1.9847	.03177	-.00007	-.00163	.00156	.01378	100.18
#2	.00477	101.31	.00021	.00446	.00163	.00049	1.9675	.03524	.00000	-.00143	.00105	.01403	100.54

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.39947	.00311	.01268	-.00386	.00065	499.43	.00321	.01195	.00532	9.9512	-.00374	-.00354	-.03533
Stddev	.03305	.00043	.00553	.00007	.00030	2.05	.00008	.00069	.00286	.0546	.00041	.00153	.00204
%RSD	8.2728	13.881	43.635	1.8110	46.183	.41093	2.3664	5.7884	53.678	.54829	10.969	43.364	5.7816

#1	.42284	.00342	.01659	-.00391	.00086	497.98	.00316	.01244	.00330	9.9898	-.00403	-.00245	-.03389
#2	.37611	.00281	.00877	-.00381	.00044	500.88	.00326	.01146	.00734	9.9126	-.00345	-.00462	-.03677

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.07561	-.01195	.00100	9.9718	-.00088	.00314	20.088	.00551	.00431	.06128
Stddev	.00437	.00047	.00011	.0024	.00034	.00000	.009	.00033	.00015	.00697
%RSD	5.7816	3.9440	11.087	.02391	38.401	.07717	.04462	5.9202	3.5987	11.366

#1	-.07251	-.01162	.00108	9.9702	-.00064	.00314	20.082	.00528	.00420	.06620
#2	-.07870	-.01229	.00092	9.9735	-.00112	.00314	20.095	.00574	.00441	.05635

Check ?	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5143.6	63929.	8591.5
Stddev	66.1	194.	102.7
%RSD	1.2857	.30291	1.1954

#1	5190.3	63792.	8664.1
#2	5096.8	64066.	8518.9

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00051	41.972	-.00044	-.00018	.00043	.00004	.52363	.00836	.00004	-.00038	.00037
Stddev	.00021	.110	.00140	.00031	.00010	.00001	.00102	.00386	.00005	.00018	.00004
%RSD	40.405	.26283	318.96	166.23	23.874	13.579	.19401	46.179	124.92	47.350	9.7772

#1	.00036	41.894	.00055	.00003	.00036	.00003	.52291	.01109	.00007	-.00025	.00039
#2	.00066	42.050	-.00143	-.00040	.00051	.00004	.52434	.00563	.00000	-.00051	.00034

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00466	W 85.139	.05597	.00283	.00261	-.00064	-.00009	W 42.769	.00099	.00309	.00093
Stddev	.00042	.791	.14648	.00134	.00403	.00003	.00015	.351	.00011	.00206	.00060
%RSD	9.0914	.92964	261.71	47.404	154.03	5.2320	169.99	.82176	11.391	66.782	64.844

#1	.00436	84.579	.15955	.00377	.00546	-.00062	.00002	42.521	.00107	.00455	.00050
#2	.00496	85.698	-.04761	.00188	-.00023	-.00066	-.00019	43.018	.00091	.00163	.00136

Check ?	None	Chk Warn	None	None	None	None	None	Chk Warn	None	None	None
Value		80.000						40.000			
Range		5.4900%						5.4900%			

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.9450	.00200	-.00029	-.01627	-.03481	-.00259	.00014	2.9798	-.00111	.00227	W 5.3496
Stddev	.0195	.00117	.00273	.00772	.01652	.00020	.00015	.0159	.00010	.00183	.0074
%RSD	.49408	58.474	937.79	47.465	47.465	7.8182	104.21	.53197	8.8573	80.868	.13866

#1	3.9312	.00117	-.00222	-.02173	-.04650	-.00245	.00025	2.9686	-.00117	.00097	5.3444
#2	3.9587	.00282	.00164	-.01081	-.02313	-.00273	.00004	2.9910	-.00104	.00356	5.3548

Check ?	Chk Pass	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value											5.0000
Range											5.4900%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00198	.00111	.01662
Stddev	.00000	.00116	.00354
%RSD	.14690	104.32	21.282

#1	.00198	.00029	.01412
#2	.00198	.00193	.01913

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5374.2	64662.	8101.9
Stddev	18.9	213.	5.0
%RSD	.35159	.32950	.06139

#1	5387.5	64813.	8098.4
#2	5360.8	64511.	8105.4

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00043	40.502	.00127	-.00042	.00047	.00001	.51896	.00697	-.00019	-.00027	.00024
Stddev	.00040	.134	.00048	.00077	.00002	.00002	.00485	.00218	.00009	.00031	.00009
%RSD	92.290	.33163	37.865	180.63	4.6357	233.04	.93368	31.299	46.391	115.00	35.156

#1	.00015	40.597	.00161	-.00097	.00049	.00002	.51553	.00543	-.00025	-.00049	.00030
#2	.00071	40.407	.00093	.00012	.00046	.00000	.52238	.00852	-.00012	-.00005	.00018

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00462	81.270	.08421	.00377	.00161	-.00059	-.00010	40.535	.00110	.00157	.00126
Stddev	.00022	.165	.01749	.00094	.00167	.00010	.00019	.064	.00009	.00096	.00173
%RSD	4.7559	.20313	20.772	24.911	103.79	17.398	200.77	.15836	8.2239	60.873	138.05

#1	.00446	81.154	.07184	.00443	.00043	-.00067	.00004	40.581	.00116	.00089	.00003
#2	.00477	81.387	.09658	.00311	.00280	-.00052	-.00023	40.490	.00104	.00225	.00248

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 3.7675	.00069	.00034	-.00089	-.00190	-.00275	.00004	2.8558	-.00074	.00140	5.1611
Stddev	.0350	.00158	.00043	.01214	.02597	.00043	.00000	.0025	.00033	.00064	.0265
%RSD	.93045	226.90	126.86	1368.1	1368.1	15.692	7.7626	.08626	44.882	45.252	.51304

#1	3.7427	.00181	.00003	.00770	.01647	-.00244	.00004	2.8575	-.00097	.00185	5.1424
#2	3.7923	-.00042	.00064	-.00947	-.02026	-.00305	.00005	2.8540	-.00051	.00096	5.1798

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Pass
Value	4.0000										
Range	-5.4900%										

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00135	.00130	.01280
Stddev	.00031	.00045	.00237
%RSD	22.975	34.157	18.487

#1	.00157	.00099	.01447
#2	.00113	.00162	.01112

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5375.5	64495.	7933.4
Stddev	12.0	242.	46.3
%RSD	.22404	.37445	.58345

#1	5367.0	64324.	7900.6
#2	5384.0	64666.	7966.1

Sample Name: ICVH-3324310 Acquired: 6/16/2015 11:02:29 Type: QC

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00056	40.096	.00310	-0.00062	.00069	.00012	.52045	.00714	-0.00015	-0.00023	.00036	.00470	80.670
Stddev	.00005	.193	.00279	.00075	.00003	.00005	.00134	.00115	.00022	.00020	.00014	.00026	.046
%RSD	9.5202	.48233	89.853	121.09	4.2082	44.090	.25675	16.053	144.17	85.431	39.856	5.5888	.05749

#1	.00052	39.960	.00507	-0.00009	.00071	.00015	.51950	.00795	-0.00030	-0.00009	.00046	.00451	80.703
#2	.00059	40.233	.00113	-0.00116	.00067	.00008	.52139	.00633	.00000	-0.00038	.00026	.00488	80.637

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04813	.00269	.00171	-0.00058	-0.00009	41.084	.00099	.00350	.00147	3.8265	.00049	-0.00224	-0.01966
Stddev	.05364	.00114	.00118	.00009	.00004	.140	.00018	.00041	.00095	.0143	.00362	.00094	.00274
%RSD	111.46	42.390	69.062	15.787	45.331	.34190	18.402	11.618	64.995	.37391	739.19	42.063	13.958

#1	.08606	.00350	.00255	-0.00051	-0.00011	41.183	.00086	.00321	.00214	3.8366	.00305	-0.00157	-0.02160
#2	.01020	.00188	.00088	-0.00064	-0.00006	40.984	.00112	.00379	.00079	3.8164	-0.00207	-0.00291	-0.01772

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.04207	-0.00293	.00011	2.8458	-0.00062	.00161	5.2002	.00182	.00172	.01315
Stddev	.00587	.00036	.00007	.0078	.00005	.00043	.0577	.00029	.00017	.00010
%RSD	13.958	12.388	68.008	.27486	7.3903	26.686	1.1085	16.013	10.123	.78651

#1	-0.04622	-0.00268	.00006	2.8402	-0.00059	.00130	5.1594	.00203	.00160	.01308
#2	-0.03792	-0.00319	.00016	2.8513	-0.00065	.00191	5.2409	.00161	.00184	.01322

Check ?	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5425.2	66536.	8462.6
Stddev	18.8	130.	44.8
%RSD	.34575	.19523	.52963

#1	5438.5	66628.	8494.3
#2	5412.0	66445.	8430.9

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.26113	F .28330	.25528	.26349	.25331	.25000	-.00173	2.0451	.26176	W .26906	.26133
Stddev	.00249	.00338	.00124	.00190	.00026	.00083	.00046	.0103	.00224	.00067	.00104
%RSD	.95449	1.1920	.48581	.72061	.10323	.33328	26.347	.50110	.85536	.24742	.39875

#1	.25937	.28091	.25616	.26215	.25312	.24941	-.00141	2.0378	.26018	.26859	.26060
#2	.26290	.28569	.25440	.26484	.25349	.25058	-.00205	2.0523	.26335	.26953	.26207

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Warn	Chk Pass
Value		.25000								.25000	
Range		10.490%								5.4900%	

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.25417	W .26381	20.280	.25797	10.548	.25960	.26007	2.0382	W .27163	W 2.1180	W .27033
Stddev	.00153	.00026	.090	.00330	.134	.00132	.00073	.0087	.00127	.0094	.00276
%RSD	.60358	.09912	.44544	1.2811	1.2734	.51032	.28112	.42539	.46916	.44150	1.0216

#1	.25308	.26363	20.216	.25563	10.453	.25866	.25956	2.0443	.27072	2.1114	.26838
#2	.25525	.26400	20.344	.26031	10.643	.26053	.26059	2.0321	.27253	2.1246	.27229

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Warn	Chk Warn					
Value		.25000							.25000	2.0000	.25000
Range		5.4900%							5.4900%	5.4900%	5.4900%

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00122	.26324	.50895	2.0093	4.2998	W .52782	.25282	-.00316	.26066	W .53404	.02347
Stddev	.00027	.00101	.01028	.0349	.0747	.00379	.00078	.00277	.00006	.00576	.03412
%RSD	22.188	.38380	2.0208	1.7376	1.7376	.71767	.30878	87.732	.02306	1.0794	145.36

#1	.00103	.26252	.50168	1.9846	4.2470	.52514	.25227	-.00120	.26062	.52996	-.00065
#2	.00142	.26395	.51622	2.0339	4.3526	.53050	.25337	-.00512	.26070	.53812	.04760

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	None	Chk Pass	Chk Warn	None
Value						.50000				.50000	
Range						5.4900%				5.4900%	

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.26158	.25926	.25319
Stddev	.00128	.00424	.00402
%RSD	.49099	1.6358	1.5896

#1	.26067	.25626	.25034
#2	.26248	.26226	.25604

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5235.0	65878.	8685.4
Stddev	51.2	712.	2.2
%RSD	.97844	1.0814	.02518

#1	5271.2	66381.	8683.9
#2	5198.8	65374.	8687.0

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.26123	F .28002	.25953	.26329	.25167	.24951	-.00272	2.0614	.26072	W .26958	.26275
Stddev	.00014	.00016	.00049	.00038	.00168	.00165	.00085	.0164	.00058	.00123	.00122
%RSD	.05206	.05842	.18967	.14388	.66609	.65936	31.435	.79537	.22207	.45533	.46517

#1	.26113	.27990	.25988	.26302	.25048	.24835	-.00332	2.0498	.26031	.26872	.26189
#2	.26132	.28013	.25918	.26356	.25285	.25068	-.00211	2.0730	.26113	.27045	.26361

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Warn	Chk Pass
Value		.25000								.25000	
Range		10.490%								5.4900%	

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.25554	W .26762	20.268	.25910	W 10.575	.25942	.26183	2.0342	W .27090	W 2.1200	W .26909
Stddev	.00005	.00245	.112	.00786	.026	.00001	.00156	.0078	.00111	.0081	.00223
%RSD	.02061	.91616	.55495	3.0324	.24431	.00234	.59394	.38266	.41010	.38027	.82830

#1	.25550	.26588	20.189	.25354	10.593	.25942	.26073	2.0397	.27012	2.1143	.26752
#2	.25557	.26935	20.348	.26465	10.557	.25941	.26293	2.0287	.27169	2.1257	.27067

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Warn
Value		.25000			10.000				.25000	2.0000	.25000
Range		5.4900%			5.4900%				5.4900%	5.4900%	5.4900%

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00181	.26339	.51195	2.0330	4.3507	.52616	.25143	-.00317	.26026	W .53011	-.00414
Stddev	.00123	.00251	.00511	.0675	.1445	.00423	.00172	.00037	.00027	.00418	.00178
%RSD	68.157	.95481	.99770	3.3203	3.3203	.80473	.68344	11.531	.10528	.78828	43.013

#1	.00268	.26162	.50834	1.9853	4.2486	.52317	.25022	-.00291	.26007	.52715	-.00540
#2	.00094	.26517	.51556	2.0808	4.4529	.52916	.25265	-.00343	.26045	.53306	-.00288

Check ?	None	Chk Pass	None	Chk Pass	Chk Warn	None					
Value										.50000	
Range										5.4900%	

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.25957	.26202	.25164
Stddev	.00065	.00020	.00553
%RSD	.25186	.07541	2.1968

#1	.25911	.26216	.24773
#2	.26003	.26188	.25555

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5314.8	65750.	8308.1
Stddev	3.0	80.	24.7
%RSD	.05629	.12098	.29713

#1	5312.7	65806.	8325.5
#2	5316.9	65693.	8290.6

Sample Name: ICIS Acquired: 6/16/2015 11:30:10 Type: Cal
 Method: 6500_025(v52) Mode: IR Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-0.0148	.00045	-0.0136	-0.0084	.00133	.01041	-0.00330	-0.00267	.00557	.00020	-0.00037	-0.00028
Stddev	.00003	.00001	.00043	.00006	.00016	.00044	.00006	.00009	.00019	.00005	.00006	.00022
%RSD	2.0638	1.2688	31.456	7.2864	12.249	4.1791	1.7085	3.3610	3.4940	24.877	16.158	79.592
#1	-0.0150	.00045	-0.0105	-0.0088	.00145	.01072	-0.00326	-0.00261	.00543	.00024	-0.00033	-0.00012
#2	-0.0146	.00045	-0.0166	-0.0080	.00122	.01011	-0.00334	-0.00273	.00571	.00016	-0.00042	-0.00043
Elem	Cu3247	Fe2599	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Na8183	Ni2316	P_1782
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00375	.00126	.00038	-0.00963	.00068	.00016	.00008	.00059	.00011	-0.00493	-0.00061	-0.00007
Stddev	.00009	.00032	.00008	.00038	.00004	.00000	.00007	.00003	.00023	.00006	.00003	.00017
%RSD	2.5129	25.496	21.912	3.9054	6.4195	2.7007	76.591	4.6540	216.86	1.2160	4.5650	227.89
#1	.00368	.00149	.00044	-0.00936	.00071	.00016	.00004	.00057	-0.00006	-0.00497	-0.00059	.00004
#2	.00382	.00103	.00032	-0.00989	.00065	.00017	.00013	.00061	.00027	-0.00489	-0.00063	-0.00019
Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00000	-0.00004	.00076	.00045	.00096	.00096	.00006	-0.01559	-0.00053	-0.00099	-0.00001	-0.00029
Stddev	.00009	.00004	.00009	.00031	.00010	.00010	.00005	.00046	.00007	.00004	.00004	.00001
%RSD	3188.8	87.605	12.280	68.073	10.237	10.237	82.540	2.9733	12.778	4.3325	329.82	4.1816
#1	-0.00006	-0.00002	.00069	.00024	.00103	.00103	.00003	-0.01527	-0.00058	-0.00096	.00001	-0.00028
#2	.00007	-0.00007	.00083	.00067	.00089	.00089	.00010	-0.01592	-0.00048	-0.00102	-0.00004	-0.00029
Elem	V_2924	Zn2062	Zr3391									
Units	Cts/S	Cts/S	Cts/S									
Avg	-0.00104	.00003	.00016									
Stddev	.00015	.00001	.00005									
%RSD	14.301	34.169	31.083									
#1	-0.0114	.00002	.00020									
#2	-0.0093	.00003	.00013									
Int. Std.	Y_2243	Y_3600	Y_3774									
Units	Cts/S	Cts/S	Cts/S									
Avg	4817.3	63358.	7128.8									
Stddev	.5	129.	22.4									
%RSD	.00936	.20394	.31395									
#1	4817.6	63266.	7144.7									
#2	4817.0	63449.	7113.0									

Sample Name: ICAL1 Acquired: 6/16/2015 11:32:33 Type: Cal
 Method: 6500_025(v52) Mode: IR Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.19799	.25297	.10570	.29909	5.1438	7.7267	1.8016	1.7851	.89077	1.0016	.32375	.82012	2.9109
Stddev	.00012	.00050	.00016	.00003	.0007	.0117	.0061	.0031	.00028	.0042	.00065	.00891	.0042
%RSD	.05834	.19839	.15169	.01073	.01319	.15108	.33730	.17143	.03196	.41790	.20194	1.0858	.14257

#1	.19791	.25333	.10581	.29907	5.1433	7.7184	1.7973	1.7829	.89097	1.0046	.32421	.81382	2.9079
#2	.19807	.25262	.10559	.29912	5.1443	7.7349	1.8059	1.7873	.89057	.99869	.32329	.82641	2.9138

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	Sb2068	Se1960	Si2881	SiO2	Sn1899
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.8003	.84057	1.1515	.56145	1.6510	.71273	.11480	.45172	.22881	.10591	.26035	.26035	.26410
Stddev	.0024	.00015	.0004	.00298	.0068	.00175	.00026	.00037	.00106	.00053	.00220	.00220	.00052
%RSD	.13535	.01764	.03945	.53145	.40997	.24538	.22961	.08168	.46321	.50369	.84681	.84681	.19704

#1	1.8020	.84067	1.1511	.56356	1.6463	.71396	.11499	.45146	.22806	.10553	.25879	.25879	.26373
#2	1.7986	.84046	1.1518	.55934	1.6558	.71149	.11461	.45198	.22955	.10629	.26191	.26191	.26446

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	9.5278	.28588	.22799	.20446	.02840	.29242
Stddev	.0108	.00045	.00053	.00070	.00008	.00150
%RSD	.11372	.15588	.23326	.34124	.27044	.51275

#1	9.5201	.28556	.22761	.20397	.02835	.29136
#2	9.5355	.28619	.22837	.20496	.02846	.29348

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4763.4	61495.	7103.6
Stddev	12.0	35.	23.2
%RSD	.25247	.05751	.32675

#1	4754.9	61470.	7087.2
#2	4771.9	61520.	7120.0

Sample Name: ICAL2 Acquired: 6/16/2015 11:34:57 Type: Cal
 Method: 6500_025(v52) Mode: IR Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Al3092	Bi2230	Fe2714	Na8183	S_1820	Th2837	U_3701
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3.4240	.29027	.71001	2.3770	.41154	.50533	.12767
Stddev	.0043	.00007	.00890	.0073	.00213	.00062	.00008
%RSD	.12714	.02324	1.2541	.30806	.51825	.12323	.06087
#1	3.4209	.29022	.70372	2.3718	.41304	.50577	.12762
#2	3.4270	.29031	.71631	2.3821	.41003	.50489	.12773
Int. Std.	Y_2243	Y_3600	Y_3774				
Units	Cts/S	Cts/S	Cts/S				
Avg	4649.9	59611.	7053.3				
Stddev	8.0	167.	8.1				
%RSD	.17163	.28027	.11514				
#1	4655.5	59492.	7059.0				
#2	4644.2	59729.	7047.5				

Sample Name: s1-3333639 Acquired: 6/16/2015 11:37:38 Type: QC

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0215	1.0037	1.9880	.99763	.99415	.99907	-.00474	9.9536	.99878	1.0009	.99257	1.0129	4.9786
Stddev	.0025	.0019	.0045	.00009	.00092	.00113	.00183	.0177	.00121	.0003	.00111	.0021	.0093
%RSD	.24461	.19228	.22559	.00903	.09259	.11314	38.628	.17775	.12142	.02576	.11186	.21103	.18722

#1	1.0198	1.0051	1.9912	.99756	.99350	.99828	-.00345	9.9411	.99963	1.0011	.99335	1.0114	4.9720
#2	1.0233	1.0024	1.9848	.99769	.99481	.99987	-.00604	9.9661	.99792	1.0007	.99178	1.0144	4.9852

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	100.28	1.9932	40.585	1.0077	.99184	10.140	10.070	1.0007	1.9994	2.0050	.01482	2.0078	1.9998
Stddev	.40	.0027	.107	.0019	.00050	.032	.183	.0012	.0023	.0047	.00267	.0001	.0019
%RSD	.39482	.13401	.26339	.18384	.05024	.31946	1.8216	.12425	.11375	.23264	18.051	.00309	.09318

#1	100.00	1.9914	40.509	1.0064	.99219	10.117	10.200	1.0016	2.0011	2.0083	.01671	2.0077	1.9985
#2	100.56	1.9951	40.660	1.0090	.99149	10.162	9.9403	.99986	1.9978	2.0017	.01292	2.0078	2.0011

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass					
Value													
Range													

Elem	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.8939	21.173	1.9904	.99773	-.00741	1.0071	2.0004	.04257	1.0121	1.0054	.99920
Stddev	.0159	.034	.0038	.00189	.00018	.0004	.0032	.02268	.0022	.0012	.00306
%RSD	.16053	.16053	.19043	.18967	2.4550	.04265	.15828	53.271	.21695	.11778	.30622

#1	9.9052	21.197	1.9931	.99639	-.00728	1.0068	2.0026	.02654	1.0105	1.0046	.99704
#2	9.8827	21.149	1.9877	.99907	-.00754	1.0074	1.9982	.05861	1.0137	1.0063	1.0014

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4770.2	61075.	7063.7
Stddev	1.8	96.	15.2
%RSD	.03818	.15733	.21545

#1	4771.4	61143.	7074.5
#2	4768.9	61008.	7052.9

Sample Name: s2-3331887 Acquired: 6/16/2015 11:40:02 Type: QC

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00202	100.53	.00309	.00369	.00116	.00037	1.9462	.02341	.00003	-.00190	.00153	.01346	99.143
Stddev	.00035	.04	.00196	.00039	.00005	.00001	.0123	.00311	.00020	.00027	.00007	.00060	1.043
%RSD	17.454	.03905	63.595	10.628	4.5917	3.5007	.63323	13.282	706.79	14.420	4.8257	4.4559	1.0521

#1	.00227	100.55	.00170	.00341	.00120	.00036	1.9374	.02121	.00017	-.00171	.00159	.01389	98.405
#2	.00177	100.50	.00447	.00396	.00112	.00038	1.9549	.02560	-.00011	-.00210	.00148	.01304	99.880

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.34066	.00493	.01264	-.00404	-.00005	501.07	.00349	.01349	.00386	9.7801	-.00339	-.00579	-.04457
Stddev	.04077	.00255	.00329	.00005	.00005	.41	.00004	.00133	.00080	.0484	.00037	.00008	.00029
%RSD	11.967	51.703	26.047	1.2571	109.71	.08217	1.2228	9.8579	20.694	.49458	10.865	1.3155	.65365

#1	.36949	.00313	.01031	-.00400	-.00001	501.36	.00346	.01255	.00443	9.7459	-.00365	-.00573	-.04478
#2	.31184	.00674	.01497	-.00407	-.00008	500.78	.00352	.01443	.00330	9.8144	-.00313	-.00584	-.04436

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.09538	-.01243	.00074	9.9398	-.00398	.00447	20.070	.00592	.00406	.04630
Stddev	.00062	.00006	.00009	.0123	.00059	.00050	.053	.00050	.00076	.00905
%RSD	.65365	.51339	11.854	.12399	14.898	11.221	.26602	8.4577	18.760	19.541

#1	-.09582	-.01239	.00068	9.9485	-.00356	.00482	20.032	.00557	.00352	.03990
#2	-.09494	-.01248	.00080	9.9311	-.00440	.00411	20.107	.00628	.00459	.05270

Check ?	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4635.4	59357.	6973.0
Stddev	24.0	140.	17.5
%RSD	.51711	.23577	.25069

#1	4618.4	59258.	6960.7
#2	4652.3	59456.	6985.4

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00043	39.758	.00474	-.00069	-.00004	.00001	.52604	.00532	-.00011	-.00048	.00022
Stddev	.00005	.084	.00288	.00040	.00016	.00005	.00327	.00256	.00002	.00008	.00004
%RSD	11.965	.21195	60.897	57.436	418.33	415.35	.62118	48.240	14.607	17.302	18.321

#1	.00046	39.699	.00677	-.00097	-.00015	-.00003	.52373	.00350	-.00009	-.00042	.00019
#2	.00039	39.818	.00270	-.00041	.00008	.00005	.52835	.00713	-.00012	-.00054	.00025

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00406	77.862	.01628	-.00009	.00582	-.00066	-.00065	41.029	.00152	.00258	.00032
Stddev	.00032	1.096	.03782	.00154	.00598	.00002	.00009	.531	.00002	.00166	.00203
%RSD	7.8448	1.4081	232.31	1659.4	102.86	3.4002	13.603	1.2938	1.2124	64.451	634.01

#1	.00429	77.087	-.01046	.00100	.01005	-.00064	-.00058	40.653	.00154	.00375	-.00111
#2	.00384	78.637	.04303	-.00118	.00159	-.00067	-.00071	41.404	.00151	.00140	.00175

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 3.7356	-.00285	-.00108	-.00013	-.00027	-.00341	.00014	2.8386	-.00097	.00170	5.1752
Stddev	.0225	.00273	.00040	.00833	.01782	.00014	.00008	.0112	.00067	.00037	.0066
%RSD	.60164	95.549	37.076	6544.2	6544.2	3.9836	61.108	.39529	68.509	21.700	.12806

#1	3.7197	-.00093	-.00080	-.00601	-.01287	-.00351	.00008	2.8465	-.00144	.00143	5.1799
#2	3.7515	-.00478	-.00136	.00576	.01233	-.00332	.00019	2.8307	-.00050	.00196	5.1705

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Pass
Value	4.0000										
Range	-5.4900%										

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00185	.00134	.00588
Stddev	.00015	.00010	.00525
%RSD	8.0734	7.4517	89.292

#1	.00196	.00127	.00217
#2	.00175	.00142	.00959

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4936.8	62557.	7139.8
Stddev	8.8	494.	7.0
%RSD	.17877	.78916	.09857

#1	4930.5	62208.	7134.8
#2	4943.0	62906.	7144.8

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .26604	W .27037	.25397	.25885	.25304	.25028	-.00044	2.0563	.25760	.26328	.25585
Stddev	.00122	.00035	.00148	.00163	.00029	.00088	.00262	.0012	.00125	.00208	.00293
%RSD	.45826	.12871	.58413	.62817	.11461	.34987	602.48	.05800	.48555	.78973	1.1439

#1	.26518	.27061	.25292	.25770	.25283	.24966	-.00229	2.0571	.25848	.26181	.25378
#2	.26691	.27012	.25502	.26000	.25324	.25090	.00142	2.0554	.25671	.26475	.25792

Check ?	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.25000	.25000									
Range	5.4900%	5.4900%									

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.26088	.25576	20.321	.25944	W 10.610	.25851	.25424	2.1029	W .26460	2.0667	W .26424
Stddev	.00001	.00101	.095	.00390	.032	.00111	.00238	.0158	.00289	.0134	.00078
%RSD	.00377	.39378	.46949	1.5035	.30115	.42820	.93690	.75261	1.0937	.64829	.29523

#1	.26088	.25647	20.254	.26220	10.587	.25772	.25255	2.1140	.26256	2.0572	.26479
#2	.26087	.25505	20.389	.25669	10.632	.25929	.25592	2.0917	.26665	2.0762	.26368

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Warn
Value					10.000				.25000		.25000
Range					5.4900%				5.4900%		5.4900%

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00307	.25829	.50452	2.0337	4.3522	.51228	.25319	-.00228	.25873	.52312	-.01262
Stddev	.00302	.00093	.00482	.0271	.0579	.00302	.00073	.00188	.00030	.00667	.00987
%RSD	98.343	.36124	.95611	1.3312	1.3312	.58967	.28999	82.376	.11692	1.2750	78.233

#1	.00520	.25763	.50111	2.0529	4.3931	.51015	.25268	-.00361	.25852	.51841	-.01960
#2	.00093	.25895	.50793	2.0146	4.3112	.51442	.25371	-.00095	.25894	.52784	-.00564

Check ?	None	Chk Pass	None	Chk Pass	Chk Pass	None					
Value											
Range											

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.25933	.25507	.24834
Stddev	.00103	.00090	.00200
%RSD	.39662	.35120	.80426

#1	.26006	.25571	.24975
#2	.25860	.25444	.24692

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4874.4	62740.	7137.9
Stddev	5.2	126.	51.8
%RSD	.10632	.20044	.72603

#1	4878.0	62829.	7174.5
#2	4870.7	62651.	7101.2

Sample Name: ICVL-3331245 Acquired: 6/16/2015 11:56:50 Type: QC

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01144	.11277	.01939	.10456	.00959	.00098	.11828	.20205	.00518	.01092	.01033	.01614	.09831	3.1629
Stddev	.00016	.00017	.00073	.00052	.00014	.00009	.00189	.00328	.00005	.00013	.00020	.00026	.00072	.0064
%RSD	1.4330	.15335	3.7655	.49549	1.4853	8.9427	1.5967	1.6239	.96743	1.2020	1.9253	1.6416	.73648	.20298

#1	.01133	.11289	.01991	.10419	.00969	.00104	.11961	.19973	.00522	.01082	.01047	.01595	.09780	3.1674
#2	.01156	.11265	.01888	.10493	.00949	.00092	.11694	.20437	.00514	.01101	.01019	.01632	.09882	3.1583

Check ?	Chk Pass													
Value														
Range														

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00971	.22594	.01061	.02001	1.0567	.04361	3.0713	.00914	.00362	.00794	.01507	.49346	1.0560	.10357
Stddev	.00030	.00452	.00016	.00041	.0032	.00086	.0103	.00092	.00081	.00030	.00016	.01011	.0216	.00087
%RSD	3.1155	2.0001	1.4627	2.0494	.30608	1.9730	.33453	10.039	22.280	3.7589	1.0611	2.0497	2.0497	.83982

#1	.00992	.22914	.01072	.01972	1.0589	.04300	3.0640	.00849	.00305	.00773	.01518	.48630	1.0407	.10296
#2	.00949	.22275	.01050	.02030	1.0544	.04422	3.0786	.00979	.00419	.00815	.01496	.50061	1.0713	.10419

Check ?	Chk Pass	None	Chk Pass											
Value														
Range														

Elem	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01025	.01442	.01011	.01563	.06593	.01051	.02270	.01443
Stddev	.00009	.00160	.00014	.00022	.01039	.00006	.00001	.00130
%RSD	.90203	11.074	1.4134	1.3952	15.759	.56198	.05974	8.9876

#1	.01031	.01329	.01001	.01578	.05858	.01047	.02271	.01534
#2	.01018	.01555	.01021	.01548	.07328	.01055	.02269	.01351

Check ?	Chk Pass							
Value								
Range								

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4992.1	64302.	7238.8
Stddev	15.1	178.	56.3
%RSD	.30271	.27605	.77757

#1	5002.8	64176.	7199.0
#2	4981.4	64427.	7278.6

Sample Name: CCVH-3331930 Acquired: 6/16/2015 12:01:22 Type: QC

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00087	49.243	.00274	.00086	.00021	.00026	.99632	.00333	-.00010	-.00131	.00064	.00769	48.113
Stddev	.00069	.221	.00215	.00077	.00011	.00006	.00128	.00313	.00016	.00023	.00017	.00065	.366
%RSD	79.179	.44818	78.367	89.545	52.301	24.608	.12835	93.856	156.25	17.565	26.489	8.4875	.76107

#1	.00038	49.087	.00122	.00140	.00029	.00021	.99541	.00112	.00001	-.00115	.00076	.00723	47.854
#2	.00136	49.399	.00426	.00031	.00013	.00030	.99722	.00555	-.00021	-.00147	.00052	.00815	48.372

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06771	.00208	.00745	-.00214	-.00063	246.20	.00171	.00748	-.00046	4.8301	-.00123	-.00759	-.01691
Stddev	.02851	.00014	.00031	.00002	.00018	1.32	.00071	.00077	.00152	.0188	.00260	.00069	.02814
%RSD	42.109	6.8908	4.1025	1.1050	28.147	.53528	41.436	10.346	334.05	.38903	211.95	9.0536	166.37

#1	.04755	.00198	.00723	-.00212	-.00051	245.27	.00121	.00694	-.00153	4.8168	-.00307	-.00710	.00298
#2	.08787	.00219	.00766	-.00216	-.00076	247.13	.00221	.00803	.00062	4.8434	.00061	-.00808	-.03681

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.03620	-.00699	.00038	4.9259	-.00199	.00308	10.296	.00255	.00031	.01470
Stddev	.06022	.00009	.00013	.0131	.00009	.00110	.007	.00016	.00019	.00021
%RSD	166.37	1.3066	35.474	.26645	4.4349	35.662	.07286	6.1696	61.257	1.4572

#1	.00639	-.00692	.00047	4.9351	-.00193	.00386	10.301	.00244	.00044	.01455
#2	-.07878	-.00705	.00028	4.9166	-.00205	.00231	10.291	.00266	.00018	.01485

Check ?	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4759.1	60575.	7163.8
Stddev	10.4	160.	55.0
%RSD	.21919	.26476	.76712

#1	4751.7	60689.	7202.6
#2	4766.5	60462.	7124.9

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .52697	W .53250	1.0271	.51918	.50529	.50032	.00055	5.0471	.51147	.51850	.50392
Stddev	.00098	.00121	.0013	.00203	.00267	.00154	.00128	.0116	.00054	.00714	.00233
%RSD	.18577	.22632	.12981	.39161	.52886	.30820	231.06	.22941	.10464	1.3770	.46267

#1	.52627	.53335	1.0280	.51774	.50340	.49923	.00146	5.0389	.51109	.52355	.50227
#2	.52766	.53165	1.0261	.52062	.50718	.50141	-.00035	5.0553	.51185	.51345	.50556

Check ?	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.50000	.50000									
Range	5.0000%	5.0000%									

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52186	2.5444	50.271	1.0167	20.661	.51143	.51120	5.1488	.52402	1.0321	W 1.0521
Stddev	.00291	.0102	.116	.0009	.002	.00038	.00071	.0142	.00109	.0056	.0002
%RSD	.55698	.40242	.23001	.09287	.00816	.07457	.13818	.27630	.20892	.54765	.01551

#1	.51980	2.5517	50.189	1.0160	20.662	.51170	.51070	5.1387	.52480	1.0361	1.0520
#2	.52391	2.5372	50.353	1.0173	20.660	.51116	.51170	5.1588	.52325	1.0281	1.0523

Check ?	Chk Pass	Chk Warn									
Value											1.0000
Range											5.0000%

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01255	1.0392	1.0309	4.9239	10.537	1.0131	.50370	-.00444	.51230	1.0400	-.01532
Stddev	.00298	.0035	.0048	.0144	.031	.0021	.00224	.00021	.00025	.0008	.02545
%RSD	23.758	.34041	.46810	.29336	.29336	.21052	.44516	4.7092	.04910	.08015	166.18

#1	.01466	1.0417	1.0343	4.9137	10.515	1.0116	.50211	-.00459	.51248	1.0406	-.03332
#2	.01044	1.0367	1.0275	4.9342	10.559	1.0146	.50528	-.00429	.51212	1.0394	.00268

Check ?	None	Chk Pass	None	Chk Pass	Chk Pass	None					
Value											
Range											

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.51657	.51173	.50467
Stddev	.00554	.00531	.00825
%RSD	1.0718	1.0382	1.6338

#1	.52049	.51548	.51050
#2	.51266	.50797	.49884

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4849.5	61834.	7209.4
Stddev	7.3	288.	14.4
%RSD	.15128	.46545	.19960

#1	4854.6	61631.	7219.6
#2	4844.3	62038.	7199.2

Sample Name: ICB Acquired: 6/16/2015 12:06:24 Type: QC
 Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0004	-0.0021	W .00527	.00051	-0.00034	-0.00001	.00025	-0.00141	-0.00028	.00028	-0.00011
Stddev	.00004	.00036	.00020	.00025	.00006	.00004	.00065	.00232	.00004	.00000	.00002
%RSD	101.83	168.75	3.8261	48.566	17.985	434.13	265.69	164.31	13.775	.34402	16.919

#1	-0.00007	-0.00046	.00513	.00068	-0.00039	-0.00004	-0.00022	.00023	-0.00030	.00028	-0.00012
#2	-0.00001	.00004	.00541	.00033	-0.00030	.00002	.00071	-0.00305	-0.00025	.00028	-0.00009

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass							
High Limit			.00500								
Low Limit			-.00500								

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00011	-0.00200	.07064	.00081	-0.00365	.00001	-0.00041	.03593	.00010	-0.00063	.00050
Stddev	.00022	.00273	.03964	.00415	.00060	.00002	.00026	.01219	.00044	.00218	.00063
%RSD	208.11	136.50	56.116	513.27	16.306	236.66	62.698	33.928	454.51	345.30	126.47

#1	-0.00026	-0.00007	.09867	-.00213	-.00407	.00000	-0.00023	.04455	-0.00021	.00091	.00005
#2	.00005	-.00392	.04261	.00374	-.00323	.00002	-0.00059	.02731	.00041	-.00218	.00094

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00023	-0.00068	-0.00149	-0.00139	-0.00298	-0.00071	-0.00011	-0.00126	-0.00054	-0.00151	.01980
Stddev	.00235	.00115	.00353	.00153	.00328	.00004	.00015	.00088	.00005	.00008	.00174
%RSD	1004.4	169.67	237.09	109.99	109.99	5.3326	134.46	70.137	8.9927	5.3597	8.7906

#1	-.00143	.00014	.00101	-.00031	-.00066	-.00074	-.00021	-.00188	-.00058	-.00146	.01857
#2	.00189	-.00149	-.00399	-.00247	-.00529	-.00068	-.00001	-.00063	-.00051	-.00157	.02104

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00017	.00004	-0.00080
Stddev	.00030	.00021	.00097
%RSD	173.92	481.57	121.85

#1	.00038	-.00010	-.00149
#2	-.00004	.00019	-.00011

Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4932.5	63195.	7166.9
Stddev	19.2	205.	18.9
%RSD	.38876	.32371	.26404

#1	4946.1	63051.	7180.3
#2	4918.9	63340.	7153.6

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01110	.10806	W .01431	.10104	.00469	.00090	.11376	.20536	.00493	.00531	.00981
Stddev	.00007	.00028	.00029	.00033	.00012	.00001	.00022	.00077	.00001	.00007	.00015
%RSD	.66024	.25851	2.0520	.32875	2.6578	1.5821	.19307	.37488	.20667	1.2398	1.5060

#1	.01116	.10826	.01451	.10081	.00478	.00089	.11361	.20591	.00493	.00536	.00970
#2	.01105	.10787	.01410	.10128	.00460	.00091	.11392	.20482	.00494	.00527	.00991

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass							
Value			.01000								
Range			20.490%								

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01019	.03014	1.0473	W .01425	.21309	.00310	.00937	1.0390	.01106	.99204	.00270
Stddev	.00011	.00134	.0707	.00051	.00789	.00001	.00039	.0056	.00009	.00772	.00000
%RSD	1.0355	4.4410	6.7550	3.5780	3.7029	.36253	4.1463	.53882	.83119	.77853	.01206

#1	.01012	.03109	1.0973	.01389	.20751	.00311	.00910	1.0350	.01112	.98658	.00270
#2	.01027	.02919	.99724	.01461	.21867	.00310	.00965	1.0430	.01099	.99750	.00270

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass						
Value				.01000							
Range				20.490%							

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09439	.00874	.01142	.49816	1.0661	.01888	.00511	W .01250	.00960	.00907	.07132
Stddev	.00392	.00204	.00033	.00262	.0056	.00009	.00010	.00102	.00025	.00081	.01921
%RSD	4.1559	23.356	2.9035	.52555	.52555	.47235	2.0303	8.1594	2.5930	8.9219	26.934

#1	.09716	.00730	.01118	.49631	1.0621	.01894	.00519	.01178	.00942	.00964	.08490
#2	.09162	.01018	.01165	.50001	1.0700	.01882	.00504	.01322	.00977	.00849	.05774

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass						
Value								.01000			
Range								20.490%			

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.01001	W .01222	W .00688
Stddev	.00032	.00001	.00048
%RSD	3.1644	.08111	6.9002

#1	.01023	.01223	.00655
#2	.00978	.01221	.00722

Check ?	Chk Pass	Chk Warn	Chk Warn
Value		.01000	.01000
Range		20.490%	-20.490%

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5054.6	64160.	7325.9
Stddev	23.6	45.	39.3
%RSD	.46677	.07028	.53599

#1	5037.9	64192.	7298.2
#2	5071.2	64128.	7353.7

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .00029	F .00088	F .01776	F -.00087	F -.00064	F .00001	F .00026	F -.00228	F -.00018	F .00004	F .00004
Stddev	.00019	.00000	.00107	.00023	.00008	.00001	.00149	.00011	.00004	.00040	.00001
%RSD	65.152	.01905	6.0514	26.661	11.843	125.65	574.41	4.8036	23.201	1118.9	13.536

#1	.00015	.00088	.01700	-.00103	-.00058	.00000	-.00080	-.00236	-.00015	.00032	.00004
#2	.00042	.00088	.01852	-.00070	-.00069	.00002	.00131	-.00221	-.00021	-.00024	.00003

Check ?	Chk Fail										
Value	.01000	.10000	.01000	.10000	.00500	.00100	.10000	.20000	.00500	.00500	.01000
Range	-50.000%	-50.000%	50.000%	-50.000%	-50.000%	-50.000%	-50.000%	-50.000%	-50.000%	-50.000%	-50.000%

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.00043	F -.00295	F .04471	W .00658	F -.00296	F -.00007	F -.00033	F -.00079	F .00005	F .00068	F -.00040
Stddev	.00063	.00009	.03269	.00003	.00572	.00001	.00002	.00712	.00028	.00154	.00170
%RSD	146.75	3.1130	73.123	.40808	193.29	17.476	7.2072	899.51	526.57	226.54	424.25

#1	-.00088	-.00301	.06782	.00660	-.00701	-.00008	-.00032	-.00583	.00025	-.00041	-.00160
#2	.00002	-.00288	.02159	.00656	.00109	-.00006	-.00035	.00424	-.00014	.00176	.00080

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Warn	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail
Value	.01000	.03000	1.0000	.01000	.20000	.00300	.01000	1.0000	.01000	1.0000	.00300
Range	-50.000%	-50.000%	-50.000%	-20.490%	-50.000%	-50.000%	-50.000%	-50.000%	-50.000%	-50.000%	-50.000%

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .00155	F -.00192	F .00215	F -.00179	F -.00383	F -.00048	F .00012	F -.00075	F -.00081	F -.00191	F .02289
Stddev	.00410	.00177	.00189	.01362	.02914	.00023	.00000	.00016	.00023	.00043	.03791
%RSD	264.77	92.219	87.741	760.87	760.87	47.261	4.0923	21.468	27.936	22.601	165.60

#1	.00444	-.00317	.00349	-.01142	-.02443	-.00032	.00012	-.00086	-.00065	-.00160	.04969
#2	-.00135	-.00067	.00082	.00784	.01677	-.00064	.00012	-.00063	-.00097	-.00221	-.00391

Check ?	Chk Fail										
Value	.10000	.01000	.01000	.50000	1.0700	.02000	.00500	.01000	.01000	.01000	.06000
Range	-50.000%	-50.000%	-50.000%	-50.000%	-50.000%	-50.000%	-50.000%	-50.000%	-50.000%	-50.000%	-50.000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	F .00018	F .02018	W .01321
Stddev	.00032	.00061	.00363
%RSD	176.08	3.0018	27.500

#1	.00041	.01975	.01578
#2	-.00004	.02061	.01064

Check ?	Chk Fail	Chk Fail	Chk Warn
Value	.01000	.01000	.01000
Range	-50.000%	50.000%	20.490%

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4937.2	63761.	7260.2
Stddev	.9	171.	19.7
%RSD	.01747	.26864	.27181

#1	4937.8	63639.	7274.2
#2	4936.6	63882.	7246.3

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00026	511.70	W .01359	-.00008	-.00028	-.00013	.00247	480.52	.00021	-.00116	.00145
Stddev	.00001	.69	.00216	.00108	.00015	.00008	.00002	7.86	.00012	.00023	.00006
%RSD	5.2475	.13435	15.901	1302.2	52.006	60.337	.91661	1.6348	55.940	19.444	3.8737

#1	.00025	512.18	.01206	.00068	-.00018	-.00019	.00249	486.08	.00013	-.00100	.00149
#2	.00027	511.21	.01512	-.00085	-.00038	-.00008	.00246	474.97	.00029	-.00132	.00141

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass							
High Limit			.00882								
Low Limit			-.00882								

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00085	183.61	-.04355	W .00704	519.68	W .00154	W -.00683	.08842	-.00064	W .00321	F -.01835
Stddev	.00026	.34	.10007	.00036	2.14	.00001	.00008	.00094	.00063	.00163	.00241
%RSD	30.753	.18641	229.79	5.1223	.41241	.43197	1.2332	1.0644	98.487	50.808	13.122

#1	.00067	183.37	-.11431	.00729	521.19	.00154	-.00689	.08775	-.00109	.00206	-.01665
#2	.00104	183.86	.02721	.00678	518.16	.00153	-.00677	.08908	-.00020	.00436	-.02006

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Fail
High Limit				.00522		.00050	.00626			.00270	.00800
Low Limit				-.00522		-.00050	-.00626			-.02700	-.00800

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03382	.00492	F .02014	W .01766	.03780	-.00037	W .00443	W -.01165	-.00063	F .02178	-.03518
Stddev	.00267	.00054	.00556	.00243	.00521	.00023	.00003	.00261	.00015	.00121	.00291
%RSD	7.8957	10.907	27.625	13.776	13.776	61.960	.63636	22.378	23.476	5.5683	8.2773

#1	.03570	.00454	.02408	.01594	.03412	-.00053	.00445	-.00981	-.00073	.02263	-.03724
#2	.03193	.00530	.01621	.01939	.04148	-.00021	.00441	-.01349	-.00052	.02092	-.03312

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Warn	None	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Fail	Chk Pass
High Limit			.01300	.00694			.00050	.00800		.02000	
Low Limit			-.01300	-.06940			-.00050	-.00800		-.02000	

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	W .00523	.00356	-.00315
Stddev	.00003	.00018	.00242
%RSD	.52929	5.1005	76.797

#1	.00521	.00343	-.00486
#2	.00524	.00368	-.00144

Check ?	Chk Warn	Chk Pass	Chk Pass
High Limit	.00222		
Low Limit	-.00222		

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4376.9	55242.	6948.1
Stddev	4.0	181.	20.1
%RSD	.09137	.32848	.28917

#1	4374.1	55114.	6962.3
#2	4379.8	55370.	6933.9

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00052	510.86	W .01814	.00013	-.00050	-.00001	-.00057	482.35	.00029	-.00081	.00185
Stddev	.00039	2.52	.00098	.00093	.00000	.00003	.00403	2.35	.00001	.00009	.00030
%RSD	74.771	.49393	5.3927	740.90	.85791	252.52	710.99	.48797	5.1098	11.012	15.931

#1	.00025	512.64	.01883	.00078	-.00050	-.00004	-.00342	484.01	.00028	-.00075	.00206
#2	.00080	509.08	.01744	-.00053	-.00050	.00001	.00228	480.69	.00030	-.00088	.00165

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass							
High Limit			.00882								
Low Limit			-.00882								

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00029	183.21	.07572	W .00962	519.75	W .00148	W -.00672	.15343	-.00030	.00259	F -.01439
Stddev	.00027	.58	.09141	.00098	2.49	.00007	.00004	.00918	.00044	.00178	.00204
%RSD	92.765	.31430	120.71	10.175	.47869	4.5055	.60422	5.9813	144.15	68.773	14.167

#1	.00049	183.62	.14036	.00892	517.99	.00143	-.00669	.15992	.00001	.00133	-.01294
#2	.00010	182.81	.01109	.01031	521.51	.00152	-.00675	.14694	-.00061	.00385	-.01583

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit				.00522		.00050	.00626				.00800
Low Limit				-.00522		-.00050	-.00626				-.00800

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02823	.00464	F .01729	.00644	.01377	.00039	W .00440	W -.00956	-.00070	F .02063	-.05483
Stddev	.00679	.00107	.00217	.00319	.00682	.00019	.00001	.00416	.00012	.00119	.00666
%RSD	24.046	23.070	12.539	49.539	49.539	48.845	.23419	43.512	17.152	5.7599	12.138

#1	.03303	.00389	.01576	.00869	.01859	.00053	.00439	-.01250	-.00062	.02147	-.05954
#2	.02343	.00540	.01883	.00418	.00895	.00026	.00440	-.00662	-.00079	.01979	-.05013

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Fail	Chk Pass
High Limit			.01300				.00050	.00800		.02000	
Low Limit			-.01300				-.00050	-.00800		-.02000	

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	W .00526	.00316	-.00257
Stddev	.00034	.00067	.00041
%RSD	6.3952	21.254	15.989

#1	.00502	.00269	-.00228
#2	.00550	.00364	-.00286

Check ?	Chk Warn	Chk Pass	Chk Pass
High Limit	.00222		
Low Limit	-.00222		

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4351.9	54965.	6927.5
Stddev	3.0	143.	1.4
%RSD	.06786	.25938	.02030

#1	4349.9	54864.	6928.5
#2	4354.0	55066.	6926.5

Sample Name: ICSAB-3327198 Acquired: 6/16/2015 12:44:00 Type: QC

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.1207	511.10	1.9945	1.9078	.51895	.49686	.96970	484.44	1.0416	.47281	.49047	.52907	183.74
Stddev	.0018	2.88	.0027	.0053	.00131	.00156	.00206	5.95	.0021	.00169	.00150	.00296	.86
%RSD	.16032	.56424	.13646	.27557	.25257	.31380	.21234	1.2282	.19640	.35816	.30575	.55944	.46548

#1	1.1220	509.06	1.9965	1.9040	.51802	.49576	.97115	480.23	1.0430	.47401	.49153	.53116	183.14
#2	1.1195	513.14	1.9926	1.9115	.51988	.49797	.96824	488.64	1.0401	.47162	.48941	.52697	184.35

Check ?	Chk Pass												
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	53.560	1.0601	515.84	.50686	.94094	51.779	.94456	1.9836	.92012	.99442	.96061	4.7655	10.347
Stddev	.205	.0046	2.64	.00015	.00273	.182	.00153	.0050	.00212	.00498	.00699	.0031	.009
%RSD	.38266	.43126	.51257	.02893	.29016	.35183	.16158	.24979	.23088	.50075	.72718	.06449	.08940

#1	53.415	1.0568	513.97	.50697	.94287	51.908	.94564	1.9871	.91862	.99794	.95567	4.7677	10.340
#2	53.705	1.0633	517.71	.50676	.93901	51.650	.94348	1.9801	.92162	.99090	.96555	4.7633	10.353

Check ?	Chk Pass												
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.142	8.8456	1.0049	1.9927	1.0002	8.2945	-.06260	.52248	.98276	.97321
Stddev	.020	.0343	.0027	.0016	.0010	.0158	.01207	.00118	.00173	.00674
%RSD	.08940	.38829	.26773	.08006	.09906	.18988	19.283	.22585	.17583	.69220

#1	22.128	8.8699	1.0030	1.9916	1.0009	8.3057	-.05406	.52164	.98154	.96845
#2	22.156	8.8213	1.0068	1.9938	.99949	8.2834	-.07113	.52331	.98398	.97798

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass					
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4347.8	54729.	6787.5
Stddev	14.2	33.	51.8
%RSD	.32756	.05977	.76281

#1	4337.7	54752.	6824.1
#2	4357.9	54706.	6750.8

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00323	.07648	9.9879	9.8259	12.435	-.00091	-.03670	.15545	2.0263	5.0762	10.061	10.769	483.46
Stddev	.00016	.00522	.0150	.0182	.012	.00002	.00372	.01307	.0021	.0011	.005	.007	.66
%RSD	4.9823	6.8231	.15057	.18511	.09553	2.6236	10.146	8.4101	.10441	.02154	.04610	.06258	.13557

#1	.00312	.08017	9.9773	9.8130	12.427	-.00089	-.03933	.16469	2.0248	5.0755	10.058	10.774	483.92
#2	.00335	.07279	9.9985	9.8388	12.444	-.00092	-.03407	.14620	2.0278	5.0770	10.065	10.764	482.99

Check ?	None	None	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.09332	-.00160	.06676	10.140	4.9764	.07153	10.205	.00687	10.269	.04142	.01846	4.9833	48.237
Stddev	.06556	.00032	.00620	.041	.0080	.01397	.000	.00087	.002	.00036	.00029	.0039	.029
%RSD	70.254	19.802	9.2813	.40397	.16078	19.533	.00240	12.632	.02376	.86017	1.5485	.07802	.05918

#1	-.13968	-.00137	.07114	10.111	4.9707	.08141	10.205	.00626	10.271	.04167	.01826	4.9860	48.258
#2	-.04696	-.00182	.06238	10.169	4.9820	.06165	10.205	.00749	10.267	.04117	.01866	4.9805	48.217

Check ?	None	None	None	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	None	None	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	103.23	.00419	10.125	.00031	10.287	4.9241	-.12412	10.178	9.7311	-.00340
Stddev	.06	.00044	.022	.00020	.010	.0027	.00672	.029	.0212	.00264
%RSD	.05918	10.597	.21906	65.295	.10169	.05577	5.4135	.28346	.21815	77.632

#1	103.27	.00451	10.141	.00046	10.279	4.9260	-.11937	10.157	9.7161	-.00526
#2	103.18	.00388	10.109	.00017	10.294	4.9221	-.12888	10.198	9.7461	-.00153

Check ?	None	None	Chk Pass	None	Chk Pass	None	None	Chk Pass	Chk Pass	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4751.5	61020.	7075.0
Stddev	1.9	6.	13.2
%RSD	.04076	.01046	.18624

#1	4752.8	61024.	7065.7
#2	4750.1	61015.	7084.4

Sample Name: CCVH-3331930 Acquired: 6/16/2015 12:49:40 Type: QC

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00094	49.028	.00499	.01307	.00236	.00007	.98964	.01335	.00017	-.00076	.00079	.00840	49.173
Stddev	.00002	.069	.00085	.00148	.00075	.00002	.00345	.00365	.00030	.00007	.00013	.00010	.072
%RSD	1.6514	.14084	16.964	11.321	31.601	27.231	.34881	27.378	175.36	9.7803	16.081	1.2439	.14585

#1	.00095	49.077	.00439	.01411	.00289	.00009	.98720	.01593	.00038	-.00071	.00089	.00848	49.122
#2	.00093	48.980	.00559	.01202	.00184	.00006	.99208	.01076	-.00004	-.00082	.00070	.00833	49.224

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08449	.00165	.00756	-.00122	.00137	247.83	.00212	.00553	.00157	4.8360	-.00108	-.00345	.05521
Stddev	.06068	.00074	.00452	.00021	.00011	.70	.00026	.00066	.00004	.0333	.00143	.00011	.00621
%RSD	71.816	45.061	59.796	17.245	8.1508	.28408	12.491	12.016	2.3063	.68893	132.74	3.1475	11.250

#1	.04158	.00217	.01076	-.00107	.00145	248.33	.00231	.00600	.00155	4.8125	-.00208	-.00352	.05082
#2	.12739	.00112	.00436	-.00137	.00129	247.33	.00193	.00506	.00160	4.8596	-.00007	-.00337	.05960

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.11815	-.00622	.00233	4.9301	-.00034	.00352	10.425	.00437	.00224	.02131
Stddev	.01329	.00041	.00047	.0103	.00007	.00150	.008	.00008	.00051	.00213
%RSD	11.250	6.6498	20.241	.20791	20.506	42.505	.07985	1.7373	22.649	10.006

#1	.10875	-.00651	.00266	4.9373	-.00039	.00247	10.419	.00442	.00260	.01980
#2	.12755	-.00592	.00199	4.9228	-.00029	.00458	10.431	.00431	.00188	.02281

Check ?	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4747.4	60070.	7020.4
Stddev	6.4	278.	31.0
%RSD	.13543	.46235	.44148

#1	4742.9	59873.	7042.3
#2	4752.0	60266.	6998.5

Sample Name: CCV-3333645 Acquired: 6/16/2015 12:52:16 Type: QC

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51926	.53452	1.0062	.51463	.49382	.48797	.00011	4.9262	.50299	.50402	.49132	.51188	2.5044
Stddev	.00049	.00004	.0018	.00122	.00027	.00061	.00023	.0160	.00012	.00051	.00086	.00102	.0024
%RSD	.09465	.00760	.18174	.23803	.05444	.12588	207.45	.32477	.02351	.10164	.17513	.19921	.09531

#1	.51892	.53449	1.0049	.51377	.49363	.48753	.00027	4.9375	.50307	.50438	.49193	.51116	2.5061
#2	.51961	.53455	1.0075	.51550	.49401	.48840	-.00005	4.9149	.50290	.50366	.49071	.51260	2.5027

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.725	.98694	20.572	.50809	.50268	5.0672	.51187	1.0168	1.0390	.01039	1.0155	1.0149	4.9204
Stddev	.056	.00374	.008	.00032	.00086	.0213	.00876	.0001	.0001	.00360	.0026	.0024	.0354
%RSD	.11286	.37875	.04098	.06354	.17018	.41955	1.7108	.01118	.01212	34.634	.25622	.23812	.72022

#1	49.685	.98430	20.566	.50832	.50328	5.0822	.51806	1.0169	1.0390	.00785	1.0137	1.0132	4.8954
#2	49.765	.98958	20.578	.50786	.50207	5.0521	.50568	1.0167	1.0391	.01294	1.0174	1.0166	4.9455

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.530	.99308	.49278	-.00358	.50407	1.0214	-.00079	.51094	.50175	.49507
Stddev	.076	.00431	.00008	.00015	.00143	.0077	.04520	.00375	.00104	.00312
%RSD	.72022	.43379	.01641	4.2080	.28280	.75871	5714.8	.73301	.20659	.63101

#1	10.476	.99004	.49283	-.00348	.50306	1.0159	-.03275	.51359	.50102	.49286
#2	10.583	.99613	.49272	-.00369	.50508	1.0269	.03117	.50830	.50249	.49728

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4879.2	62102.	7169.8
Stddev	5.4	221.	45.4
%RSD	.11041	.35522	.63389

#1	4883.0	62258.	7201.9
#2	4875.4	61946.	7137.7

Sample Name: CCB Acquired: 6/16/2015 12:54:41 Type: QC
 Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00049	.00152	.00385	.00446	-.00023	.00006	.00301	-.00005	.00011	-.00016	.00002	.00005	.00365
Stddev	.00034	.00010	.00101	.00081	.00027	.00004	.00194	.00273	.00009	.00029	.00019	.00056	.00173
%RSD	68.614	6.8611	26.175	18.204	118.43	58.595	64.535	5464.2	87.628	186.55	1006.1	1177.1	47.380
#1	.00025	.00145	.00314	.00503	-.00004	.00009	.00438	.00188	.00004	.00005	-.00011	.00044	.00243
#2	.00073	.00159	.00456	.00388	-.00043	.00004	.00164	-.00198	.00017	-.00036	.00015	-.00035	.00487

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04326	-.00142	.00603	.00002	-.00003	.03616	.00012	.00222	-.00083	.00201	-.00209	-.00013	.00729
Stddev	.01256	.00009	.00151	.00003	.00040	.01067	.00006	.00161	.00082	.00134	.00058	.00159	.00970
%RSD	29.036	6.5905	25.084	173.76	1229.1	29.524	45.974	72.619	99.168	66.586	27.740	1178.9	133.13
#1	.03437	-.00135	.00496	.00004	-.00032	.02861	.00008	.00108	-.00025	.00296	-.00168	-.00126	.01415
#2	.05214	-.00149	.00710	.00000	.00025	.04370	.00016	.00337	-.00141	.00107	-.00250	.00099	.00043

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01560	-.00047	.00013	-.00073	-.00018	-.00083	.01519	.00068	.00091	-.00022
Stddev	.02077	.00078	.00004	.00101	.00010	.00028	.00125	.00016	.00063	.00006
%RSD	133.13	165.85	32.267	138.77	58.285	33.743	8.2507	23.007	68.760	29.081
#1	.03028	.00008	.00010	-.00001	-.00010	-.00063	.01607	.00057	.00047	-.00027
#2	.00091	-.00103	.00016	-.00144	-.00025	-.00103	.01430	.00080	.00135	-.00018

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4962.4	63474.	7208.2
Stddev	1.8	53.	4.7
%RSD	.03543	.08347	.06544
#1	4961.1	63512.	7211.6
#2	4963.6	63437.	7204.9

Sample Name: CCVL-33336700 Acquired: 6/16/2015 12:57:03 Type: QC

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01179	.11284	.01931	.10958	.00955	.00105	.11795	.20080	.00527	.01115	.01027	.01615	.10376	3.1019
Stddev	.00014	.00086	.00129	.00003	.00061	.00002	.00107	.00264	.00017	.00001	.00017	.00020	.00114	.0012
%RSD	1.2073	.76387	6.6650	.02400	6.3389	1.5009	.90618	1.3166	3.1305	.13102	1.6928	1.2369	1.1020	.03781

#1	.01168	.11345	.01840	.10960	.00998	.00104	.11870	.20267	.00539	.01114	.01039	.01601	.10295	3.1011
#2	.01189	.11223	.02022	.10956	.00912	.00106	.11719	.19893	.00515	.01116	.01015	.01629	.10457	3.1027

Check ?	Chk Pass													
Value														
Range														

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00789	.22645	.01078	.01939	1.0673	.04355	3.1015	.00901	.00432	.00821	.01622	.49653	1.0626	.10101
Stddev	.00060	.00421	.00002	.00002	.0064	.00014	.0294	.00038	.00036	.00158	.00263	.02283	.0488	.00071
%RSD	7.5460	1.8581	.23080	.08530	.59950	.32338	.94800	4.1707	8.2425	19.262	16.244	4.5977	4.5977	.70490

#1	.00831	.22943	.01077	.01940	1.0627	.04345	3.0807	.00875	.00407	.00709	.01435	.48039	1.0280	.10151
#2	.00747	.22348	.01080	.01938	1.0718	.04365	3.1223	.00928	.00457	.00932	.01808	.51267	1.0971	.10050

Check ?	Chk Pass	None	Chk Pass											
Value														
Range														

Elem	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01036	.01395	.01045	.01767	.05750	.01119	.02348	.01637
Stddev	.00019	.00048	.00019	.00088	.03065	.00045	.00087	.00094
%RSD	1.8676	3.4610	1.7724	4.9827	53.308	4.0149	3.7108	5.7333

#1	.01022	.01361	.01058	.01705	.07918	.01087	.02410	.01571
#2	.01050	.01429	.01031	.01829	.03583	.01151	.02286	.01704

Check ?	Chk Pass							
Value								
Range								

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5100.8	64358.	7313.5
Stddev	.5	410.	34.0
%RSD	.01014	.63760	.46438

#1	5100.5	64068.	7289.4
#2	5101.2	64648.	7337.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00007	.00537	.00270	-.00001	-.00061	.00008	.00136	.00182	-.00001
Stddev	.00033	.00037	.00164	.00042	.00021	.00003	.00010	.00023	.00022
%RSD	486.60	6.8499	60.845	3150.1	34.601	34.894	7.6445	12.649	1744.8

#1	.00030	.00563	.00386	-.00031	-.00046	.00010	.00129	.00198	.00014
#2	-.00017	.00511	.00154	.00028	-.00076	.00006	.00143	.00165	-.00017

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00008	.00014	.00049	F_24837	-.01786	-.00315	-.00179	.00101	-.00018
Stddev	.00021	.00012	.00002	.00335	.03474	.00110	.00442	.00001	.00008
%RSD	264.68	83.564	3.1902	1.3498	194.52	34.945	247.13	1.2567	46.099

#1	-.00007	.00006	.00051	.25074	.00670	-.00237	-.00491	.00101	-.00024
#2	.00022	.00023	.00048	.24600	-.04242	-.00393	.00134	.00100	-.00012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass				
High Limit				.10000					
Low Limit				-.10000					

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01690	.00021	-.00070	.00011	.00619	-.00258	.00141	-.00070	-.00150
Stddev	.00274	.00004	.00013	.00049	.00001	.00172	.00558	.00306	.00656
%RSD	16.215	18.725	17.957	460.47	.15958	66.784	394.76	438.13	438.13

#1	.01884	.00018	-.00079	-.00024	.00620	-.00136	.00536	.00147	.00314
#2	.01496	.00023	-.00061	.00046	.00618	-.00379	-.00253	-.00287	-.00613

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00054	.00012	-.00166	-.00020	-.00040	.00327	.00042	.00032	.00055
Stddev	.00001	.00016	.00062	.00014	.00120	.01105	.00013	.00025	.00071
%RSD	1.8643	130.21	37.450	70.083	299.78	338.22	30.259	80.406	128.30

#1	-.00055	.00001	-.00122	-.00010	.00045	-.00454	.00051	.00014	.00106
#2	-.00053	.00023	-.00210	-.00030	-.00124	.01108	.00033	.00050	.00005

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4973.7	64460.	7250.6
Stddev	9.6	113.	22.5
%RSD	.19398	.17606	.31052

#1	4966.9	64540.	7234.7
#2	4980.6	64379.	7266.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05412	2.0914	1.0200	1.0506	2.0337	.05012	2.0690	50.311	.10230
Stddev	.00048	.0009	.0069	.0019	.0021	.00005	.0010	.051	.00050
%RSD	.87930	.04098	.67339	.18507	.10224	.09824	.05030	.10127	.48761

#1	.05379	2.0908	1.0249	1.0519	2.0322	.05008	2.0697	50.347	.10195
#2	.05446	2.0920	1.0152	1.0492	2.0352	.05015	2.0683	50.275	.10265

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50623	F .20273	.26162	1.0057	51.145	1.0175	51.434	.51668	1.0373
Stddev	.00495	.00045	.00059	.0010	.199	.0031	.041	.00063	.0015
%RSD	.97856	.22421	.22516	.09920	.38922	.30359	.08029	.12133	.14468

#1	.50273	.20241	.26120	1.0064	51.004	1.0153	51.404	.51624	1.0363
#2	.50974	.20305	.26203	1.0050	51.286	1.0197	51.463	.51712	1.0384

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	51.595	.50855	10.511	.50183	2.0276	.51072	2.0564	9.9844	21.367
Stddev	.246	.00046	.006	.00111	.0014	.00292	.0064	.1274	.273
%RSD	.47625	.09104	.05737	.22096	.07070	.57260	.31001	1.2758	1.2758

#1	51.421	.50822	10.515	.50262	2.0286	.51278	2.0609	9.8943	21.174
#2	51.769	.50888	10.506	.50105	2.0266	.50865	2.0519	10.074	21.559

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9872	1.0132	.97801	1.0257	1.9889	2.0734	.51643	.49904	.50425
Stddev	.0043	.0010	.00407	.0020	.0070	.0080	.00024	.00172	.00815
%RSD	.21405	.09657	.41625	.19924	.35365	.38631	.04553	.34425	1.6166

#1	1.9842	1.0125	.97513	1.0242	1.9839	2.0791	.51627	.49782	.49848
#2	1.9902	1.0139	.98089	1.0271	1.9938	2.0677	.51660	.50025	.51001

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4751.0	61137.	7124.3
Stddev	4.2	221.	39.0
%RSD	.08759	.36137	.54724

#1	4754.0	60981.	7096.7
#2	4748.1	61294.	7151.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05508	2.1107	1.0322	1.0560	2.0569	.05069	2.0879	50.744	.10315
Stddev	.00095	.0010	.0008	.0014	.0042	.00002	.0077	.041	.00007
%RSD	1.7296	.04573	.07249	.13079	.20228	.02965	.36901	.08024	.07082

#1	.05441	2.1100	1.0328	1.0570	2.0598	.05070	2.0934	50.715	.10310
#2	.05576	2.1114	1.0317	1.0550	2.0540	.05068	2.0825	50.773	.10320

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50712	F .20388	.26285	1.0298	51.747	1.0319	51.645	.51348	1.0442
Stddev	.00036	.00036	.00015	.0031	.106	.0037	.033	.00073	.0011
%RSD	.07094	.17607	.05834	.30188	.20470	.35492	.06356	.14212	.10494

#1	.50737	.20413	.26274	1.0276	51.672	1.0345	51.622	.51296	1.0434
#2	.50686	.20362	.26296	1.0320	51.822	1.0293	51.668	.51400	1.0450

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	52.473	.51112	10.582	.50584	1.9622	.51286	2.0740	10.136	21.691
Stddev	.288	.00053	.031	.00051	.0040	.00119	.0104	.049	.106
%RSD	.54972	.10402	.29013	.10143	.20296	.23191	.50107	.48795	.48795

#1	52.270	.51150	10.604	.50548	1.9594	.51202	2.0813	10.101	21.616
#2	52.677	.51075	10.560	.50620	1.9650	.51371	2.0666	10.171	21.766

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0032	1.0241	.98821	1.0284	2.0081	2.0879	.52083	.50365	.50845
Stddev	.0079	.0022	.00266	.0009	.0010	.0432	.00117	.00018	.00733
%RSD	.39311	.21859	.26924	.09156	.05110	2.0714	.22515	.03539	1.4414

#1	2.0088	1.0257	.98633	1.0277	2.0074	2.0573	.52166	.50377	.51363
#2	1.9976	1.0225	.99009	1.0291	2.0089	2.1185	.52000	.50352	.50327

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4731.0	60851.	7065.9
Stddev	10.3	67.	4.5
%RSD	.21831	.11054	.06387

#1	4738.3	60898.	7062.7
#2	4723.7	60803.	7069.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00144	.00530	.01433	.50081	.05326	-.00005	-.00130	198.74	-.00002
Stddev	.00025	.00018	.00359	.00156	.00022	.00011	.00144	.59	.00021
%RSD	17.286	3.4035	25.072	.31193	.40790	207.72	110.67	.29586	927.43

#1	.00126	.00543	.01179	.50191	.05311	-.00013	-.00028	198.33	-.00017
#2	.00161	.00517	.01687	.49970	.05341	.00002	-.00232	199.16	.00012

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02110	-.00099	.00110	12.710	3.7647	.00470	25.911	7.2851	-.00626
Stddev	.00044	.00012	.00041	.009	.0054	.00042	.093	.0495	.00018
%RSD	2.1020	11.702	37.606	.06778	.14463	8.8906	.35888	.67919	2.8787

#1	.02079	-.00107	.00139	12.704	3.7686	.00440	25.845	7.2502	-.00639
#2	.02141	-.00090	.00081	12.716	3.7609	.00499	25.977	7.3201	-.00613

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	589.592 {57}	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.5349	W 10.049	.00544	.00240	F -.01237	107.64	-.00489	.01321	6.2148
Stddev	.0114	.097	.00037	.00081	.00078	.54	.00050	.00157	.0797
%RSD	.11981	.96802	6.7192	33.910	6.3213	.50132	10.225	11.857	1.2826

#1	9.5269	10.118	.00518	.00297	-.01292	108.02	-.00525	.01432	6.2711
#2	9.5430	9.9804	.00570	.00182	-.01181	107.26	-.00454	.01210	6.1584

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		500.00			200.00				
Low Limit		11.000			-.00600				

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.300	-.00077	1.0105	-.00238	-.00094	.01246	-.03541	.00022	.00443
Stddev	.171	.00014	.0036	.00004	.00033	.00049	.05814	.00014	.00019
%RSD	1.2826	18.072	.35116	1.8129	34.762	3.9340	164.20	63.703	4.3103

#1	13.420	-.00067	1.0080	-.00241	-.00071	.01212	.00570	.00032	.00456
#2	13.179	-.00087	1.0130	-.00235	-.00117	.01281	-.07652	.00012	.00429

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 {99}
Units	ppm
Avg	-.00135
Stddev	.00046
%RSD	33.755

#1	-.00168
#2	-.00103

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-70022-e-1-k Acquired: 6/16/2015 13:47:25 Type: Unk
Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
User: S. Scott Prep Date: Custom ID2: Custom ID3:
Comment: 280389 6010C

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	4679.9	60552.	7144.3
Stddev	23.4	185.	1.9
%RSD	.49968	.30581	.02620
#1	4663.4	60683.	7145.7
#2	4696.5	60421.	7143.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00086	.06534	.01133	.07522	.13626	-.00008	-.00304	87.473	.00013
Stddev	.00062	.00140	.00231	.00065	.00033	.00012	.00101	.033	.00006
%RSD	71.914	2.1426	20.366	.86189	.23971	144.58	33.307	.03771	44.308

#1	.00042	.06435	.00970	.07476	.13603	.00000	-.00376	87.496	.00017
#2	.00129	.06633	.01297	.07568	.13649	-.00017	-.00233	87.450	.00009

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00082	-.00063	.00166	7.1481	3.6952	.00060	10.783	.69660	-.00461
Stddev	.00011	.00005	.00022	.0095	.0415	.00130	.036	.00020	.00008
%RSD	13.346	7.5906	13.225	.13213	1.1222	216.12	.33791	.02818	1.7864

#1	.00089	-.00060	.00150	7.1548	3.7246	.00152	10.808	.69646	-.00455
#2	.00074	-.00066	.00181	7.1414	3.6659	-.00032	10.757	.69674	-.00467

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0509	.00415	.11678	F -.00967	.33620	-.00418	.00967	5.5420	11.860
Stddev	.0353	.00021	.00261	.00107	.00361	.00178	.00029	.0102	.022
%RSD	1.7198	5.1602	2.2363	11.080	1.0733	42.579	2.9577	.18425	.18425

#1	2.0259	.00430	.11863	-.00892	.33875	-.00544	.00947	5.5492	11.875
#2	2.0758	.00399	.11493	-.01043	.33364	-.00292	.00987	5.5348	11.844

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass				
High Limit				200.00					
Low Limit				-.00600					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00043	.29852	-.00279	.00026	.00853	-.01790	.00025	.02454	-.00019
Stddev	.00047	.00066	.00137	.00008	.00052	.04848	.00053	.00042	.00173
%RSD	110.66	.22212	49.129	30.282	6.0979	270.93	209.54	1.7302	915.83

#1	-.00076	.29899	-.00376	.00020	.00816	.01639	.00063	.02484	.00103
#2	-.00009	.29805	-.00182	.00031	.00890	-.05218	-.00012	.02423	-.00141

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4838.1	61924.	7182.2
Stddev	4.2	12.	24.1
%RSD	.08724	.01934	.33575

#1	4835.1	61916.	7165.1
#2	4841.1	61933.	7199.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05636	2.1940	1.0465	1.1375	2.2002	.05103	F 2.0838	138.60	.10414
Stddev	.00036	.0009	.0004	.0022	.0014	.00010	.0074	.11	.00019
%RSD	.63848	.04230	.04203	.19005	.06152	.20174	.35651	.07593	.18720

#1	.05611	2.1946	1.0462	1.1360	2.1992	.05110	2.0785	138.52	.10428
#2	.05662	2.1933	1.0468	1.1390	2.2011	.05095	2.0890	138.67	.10401

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50805	W .20489	.26793	8.2062	56.343	1.0503	62.816	1.2141	1.0479
Stddev	.00056	.00084	.00169	.0010	.064	.0009	.014	.0001	.0009
%RSD	.11025	.41198	.63030	.01156	.11363	.08555	.02197	.00644	.08755

#1	.50765	.20549	.26913	8.2055	56.298	1.0497	62.826	1.2141	1.0486
#2	.50844	.20430	.26674	8.2068	56.388	1.0509	62.806	1.2140	1.0473

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	54.979	.51492	W 10.947	.50031	2.3159	.51540	2.0807	15.769	33.745
Stddev	.205	.00147	.019	.00220	.0001	.00133	.0053	.059	.127
%RSD	.37223	.28497	.17644	.43892	.00296	.25782	.25589	.37693	.37693

#1	55.123	.51596	10.933	.50186	2.3160	.51634	2.0769	15.811	33.835
#2	54.834	.51389	10.961	.49875	2.3159	.51446	2.0844	15.727	33.655

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9917	1.3326	1.0017	1.0474	1.9731	2.1226	.52884	.52321	.51331
Stddev	.0007	.0006	.0021	.0001	.0023	.0129	.00017	.00154	.00521
%RSD	.03740	.04382	.20790	.01281	.11549	.60845	.03213	.29399	1.0154

#1	1.9922	1.3321	1.0002	1.0473	1.9747	2.1317	.52896	.52213	.51700
#2	1.9912	1.3330	1.0032	1.0475	1.9715	2.1134	.52872	.52430	.50963

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4657.6	59848.	7011.5
Stddev	14.0	145.	1.7
%RSD	.30134	.24215	.02412

#1	4647.7	59950.	7010.3
#2	4667.5	59745.	7012.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05661	2.2128	1.0584	1.1513	2.2201	.05155	F 2.1043	140.32	.10505
Stddev	.00003	.0036	.0054	.0014	.0038	.00013	.0080	.31	.00022
%RSD	.05237	.16288	.51227	.12234	.16931	.24669	.37869	.22165	.21169

#1	.05663	2.2153	1.0546	1.1503	2.2174	.05146	2.0987	140.10	.10489
#2	.05659	2.2102	1.0622	1.1523	2.2227	.05164	2.1100	140.54	.10521

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51219	W .20612	.26903	8.3125	56.885	1.0543	63.186	1.2264	1.0587
Stddev	.00079	.00031	.00072	.0086	.100	.0008	.086	.0013	.0010
%RSD	.15402	.15170	.26812	.10358	.17656	.07219	.13573	.10889	.09563

#1	.51275	.20634	.26852	8.3186	56.814	1.0549	63.247	1.2255	1.0594
#2	.51164	.20590	.26954	8.3064	56.956	1.0538	63.125	1.2274	1.0580

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	55.373	.51937	W 11.041	.50338	2.3356	.52108	2.1037	16.041	34.329
Stddev	.158	.00194	.016	.00253	.0012	.00198	.0089	.026	.056
%RSD	.28495	.37382	.14699	.50334	.05154	.38053	.42563	.16338	.16338

#1	55.485	.52074	11.029	.50517	2.3348	.51968	2.0974	16.060	34.368
#2	55.262	.51799	11.052	.50159	2.3365	.52248	2.1101	16.023	34.289

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 2.0141	1.3453	1.0077	1.0571	1.9905	2.1611	.53369	.52634	.52083
Stddev	.0032	.0009	.0027	.0019	.0006	.0186	.00186	.00037	.00137
%RSD	.15704	.06969	.26338	.17605	.02897	.86262	.34778	.07080	.26373

#1	2.0163	1.3446	1.0096	1.0558	1.9901	2.1480	.53238	.52608	.52181
#2	2.0118	1.3459	1.0058	1.0584	1.9909	2.1743	.53501	.52660	.51986

Check ?	Chk Warn	Chk Pass							
High Limit	2.0000								
Low Limit	-.05000								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4645.0	59446.	7023.5
Stddev	19.0	167.	4.1
%RSD	.40958	.28085	.05902

#1	4631.6	59328.	7020.5
#2	4658.5	59564.	7026.4

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00100	48.475	.00213	.00316	.00028	.00003	.99670	.00560	.00023	-.00127	.00054
Stddev	.00048	.093	.00120	.00054	.00022	.00006	.00114	.00347	.00003	.00011	.00020
%RSD	47.724	.19286	56.461	16.941	78.212	163.77	.11429	61.883	12.730	8.8601	37.668

#1	.00134	48.409	.00128	.00354	.00044	-.00001	.99589	.00805	.00025	-.00135	.00039
#2	.00066	48.541	.00298	.00278	.00013	.00007	.99750	.00315	.00021	-.00119	.00068

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00600	47.816	.22447	.00109	.00601	-.00223	-.00020	240.57	.00214	.00558	.00039
Stddev	.00056	.219	.00203	.00115	.00635	.00009	.00002	.43	.00007	.00189	.00057
%RSD	9.3780	.45840	.90368	105.75	105.75	4.1661	8.3853	.18016	3.1012	33.960	144.75

#1	.00640	47.971	.22591	.00190	.01050	-.00217	-.00019	240.88	.00210	.00692	-.00001
#2	.00560	47.661	.22304	.00027	.00151	-.00230	-.00021	240.26	.00219	.00424	.00080

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4.6949	-.00432	-.00376	-.01336	-.02858	-.00748	.00052	4.8593	-.00079	.00158	W 10.572
Stddev	.0148	.00061	.00179	.03349	.07166	.00115	.00003	.0050	.00031	.00131	.006
%RSD	.31541	14.102	47.494	250.71	250.71	15.351	6.3184	.10265	39.223	82.726	.05721

#1	4.6844	-.00389	-.00250	-.03704	-.07926	-.00667	.00054	4.8628	-.00057	.00066	10.568
#2	4.7053	-.00475	-.00502	.01032	.02209	-.00829	.00049	4.8558	-.00101	.00251	10.577

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value	5.0000										10.000
Range	-5.0000%										5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00305	.00077	.01346
Stddev	.00050	.00013	.00081
%RSD	16.347	17.019	6.0149

#1	.00340	.00068	.01403
#2	.00270	.00087	.01289

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4746.5	60242.	7180.9
Stddev	23.7	33.	14.3
%RSD	.49837	.05505	.19906

#1	4763.2	60219.	7191.0
#2	4729.8	60266.	7170.8

Sample Name: CCV-3333645 Acquired: 6/16/2015 14:00:11 Type: QC

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51640	.54339	1.0056	.50824	.49337	.48761	.00062	4.9186	.50383	.50926	.48984	.50957	2.4819
Stddev	.00131	.00403	.0046	.00095	.00285	.00087	.00050	.0203	.00077	.00688	.00148	.00084	.0111
%RSD	.25306	.74209	.45994	.18722	.57730	.17813	81.154	.41279	.15200	1.3504	.30118	.16487	.44510

#1	.51548	.54624	1.0089	.50891	.49135	.48699	.00097	4.9042	.50437	.50439	.49088	.51017	2.4741
#2	.51732	.54054	1.0023	.50757	.49538	.48822	.00026	4.9329	.50329	.51412	.48880	.50898	2.4897

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.633	.99377	20.404	.50562	.50009	5.1258	.51608	1.0319	1.0384	.01108	1.0161	1.0136	4.9073
Stddev	.255	.00305	.062	.00109	.00158	.0086	.00084	.0026	.0012	.00013	.0046	.0006	.0964
%RSD	.51467	.30701	.30310	.21616	.31690	.16878	.16353	.25525	.11776	1.1439	.45039	.05637	1.9641

#1	49.453	.99161	20.360	.50484	.50121	5.1197	.51668	1.0301	1.0376	.01099	1.0193	1.0140	4.8391
#2	49.814	.99593	20.448	.50639	.49897	5.1319	.51549	1.0338	1.0393	.01117	1.0129	1.0132	4.9754

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.502	.99011	.49301	-.00382	.50217	1.0194	-.01479	.50913	.50358	.49681
Stddev	.206	.00097	.00156	.00023	.00069	.0026	.00296	.00369	.00171	.00012
%RSD	1.9641	.09796	.31654	6.1305	.13839	.25133	20.037	.72385	.33879	.02323

#1	10.356	.98942	.49190	-.00366	.50267	1.0212	-.01269	.51173	.50237	.49673
#2	10.647	.99079	.49411	-.00399	.50168	1.0176	-.01689	.50652	.50479	.49689

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4858.0	61468.	7095.8
Stddev	10.9	237.	66.0
%RSD	.22411	.38558	.93074

#1	4850.3	61636.	7142.5
#2	4865.7	61301.	7049.1

Sample Name: CCB Acquired: 6/16/2015 14:02:37 Type: QC
 Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00047	.00017	.00246	.00065	-.00026	.00001	.00369	-.00129	-.00004	.00007	-.00014	-.00010	-.00115
Stddev	.00026	.00049	.00054	.00013	.00021	.00004	.00140	.00070	.00010	.00014	.00010	.00027	.00250
%RSD	54.717	288.23	22.002	19.507	81.897	678.59	37.972	54.548	228.65	206.71	75.615	258.85	217.46

#1	.00065	-.00018	.00208	.00056	-.00011	-.00002	.00468	-.00079	.00003	.00017	-.00021	-.00029	.00062
#2	.00029	.00052	.00285	.00074	-.00041	.00003	.00270	-.00179	-.00011	-.00003	-.00006	.00009	-.00292

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08919	-.00272	-.00385	-.00001	-.00049	.08339	.00069	-.00030	.00007	.00307	-.00244	.00121	-.01422
Stddev	.00377	.00009	.00006	.00001	.00023	.00081	.00001	.00073	.00143	.00003	.00150	.00086	.02784
%RSD	4.2315	3.3325	1.6562	50.895	46.102	.96842	1.2027	243.89	1971.6	.93232	61.503	70.965	195.74

#1	.08652	-.00278	-.00380	-.00001	-.00065	.08282	.00068	-.00081	.00108	.00305	-.00138	.00060	-.03391
#2	.09186	-.00266	-.00389	-.00001	-.00033	.08396	.00069	.00022	-.00094	.00309	-.00350	.00182	.00546

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.03044	-.00002	.00012	-.00131	-.00027	-.00001	.00105	.00038	.00059	-.00177
Stddev	.05958	.00020	.00009	.00231	.00007	.00053	.06672	.00006	.00003	.00040
%RSD	195.74	1053.3	73.753	177.06	27.485	4418.0	6380.9	15.196	4.8306	22.356

#1	-.07257	.00012	.00006	-.00294	-.00032	-.00038	.04822	.00034	.00057	-.00149
#2	.01169	-.00016	.00019	.00033	-.00022	.00036	-.04613	.00043	.00061	-.00205

Check ?	Chk Pass									
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4998.9	63824.	7300.4
Stddev	13.8	54.	23.8
%RSD	.27612	.08418	.32564

#1	4989.2	63862.	7283.6
#2	5008.7	63786.	7317.2

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01132	.11704	F .02080	.10435	.00937	.00104	.11687	.21396	.00524	.01069	.01015	.01580
Stddev	.00009	.00048	.00016	.00128	.00008	.00002	.00311	.00045	.00004	.00008	.00025	.00015
%RSD	.76900	.41135	.75190	1.2286	.87835	1.6025	2.6608	.21049	.68039	.79300	2.4806	.94160

#1	.01138	.11670	.02092	.10344	.00932	.00103	.11467	.21428	.00522	.01063	.00997	.01590
#2	.01126	.11738	.02069	.10526	.00943	.00105	.11907	.21364	.00527	.01075	.01032	.01569

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass								
Value			.01500									
Range			30.000%									

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10121	3.1320	.00894	.22632	.01061	.01879	1.0997	.04285	3.0718	.01017	.00580	F .00688
Stddev	.00115	.0287	.00002	.00304	.00001	.00030	.0059	.00025	.0339	.00056	.00046	.00051
%RSD	1.1409	.91681	.20881	1.3424	.13036	1.6170	.53454	.59358	1.1038	5.4966	7.9333	7.4475

#1	.10039	3.1117	.00895	.22847	.01060	.01858	1.0956	.04267	3.0479	.00977	.00547	.00652
#2	.10202	3.1523	.00893	.22417	.01062	.01901	1.1039	.04303	3.0958	.01056	.00613	.00725

Check ?	Chk Pass	None	Chk Fail									
Value												.01000
Range												-30.000%

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01638	48453	1.0369	.10085	.01018	.01262	.00992	.01683	.04276	.01062	.02350	.01407
Stddev	.00074	.03444	.0737	.00042	.00008	.00086	.00030	.00124	.00787	.00022	.00039	.00000
%RSD	4.5446	7.1083	7.1083	.41364	.77494	6.8050	3.0346	7.3813	18.403	2.0513	1.6726	.02573

#1	.01690	.46018	.98478	.10055	.01013	.01201	.01013	.01595	.04833	.01046	.02322	.01407
#2	.01585	.50888	1.0890	.10114	.01024	.01322	.00971	.01771	.03720	.01077	.02378	.01406

Check ?	Chk Pass											
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5009.9	63990.	7296.6
Stddev	1.1	60.	7.5
%RSD	.02145	.09398	.10217

#1	5009.1	63948.	7301.8
#2	5010.6	64033.	7291.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00133	.00789	.01157	.52668	.05531	-.00008	-.00451	204.61	.00013
Stddev	.00019	.00002	.00457	.00110	.00005	.00003	.00235	.83	.00001
%RSD	14.237	.27230	39.540	.20805	.09400	34.047	52.161	.40641	6.8280

#1	.00120	.00790	.00833	.52745	.05527	-.00010	-.00617	205.20	.00013
#2	.00147	.00787	.01480	.52590	.05535	-.00006	-.00284	204.02	.00012

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02195	-.00065	.00096	13.162	3.9466	.00291	27.235	7.5881	-.00640
Stddev	.00006	.00002	.00020	.042	.0560	.00115	.014	.0144	.00013
%RSD	.27109	3.8469	21.219	.31780	1.4184	39.315	.05069	.18989	2.0693

#1	.02190	-.00063	.00082	13.133	3.9070	.00372	27.225	7.5983	-.00649
#2	.02199	-.00066	.00111	13.192	3.9862	.00210	27.244	7.5779	-.00631

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	589.592 {57}	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.9151	W 10.185	.00575	.00350	F -.01224	112.49	-.00084	.01306	6.4657
Stddev	.0377	.100	.00020	.00012	.00095	.42	.00157	.00538	.0093
%RSD	.38060	.98011	3.4565	3.4815	7.7820	.37460	187.15	41.208	.14349

#1	9.8884	10.114	.00561	.00342	-.01156	112.79	-.00195	.00926	6.4592
#2	9.9418	10.255	.00589	.00359	-.01291	112.20	.00027	.01687	6.4723

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		500.00			200.00				
Low Limit		11.000			-.00600				

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.837	-.00055	1.0486	-.00372	-.00064	.01261	-.00820	-.00015	.00516
Stddev	.020	.00033	.0033	.00148	.00059	.00147	.01334	.00043	.00021
%RSD	.14349	59.737	.31246	39.797	92.532	11.675	162.76	288.55	3.9845

#1	13.823	-.00078	1.0463	-.00267	-.00022	.01365	.00124	-.00045	.00530
#2	13.851	-.00032	1.0509	-.00477	-.00106	.01157	-.01763	.00015	.00501

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 {99}
Units	ppm
Avg	-.00047
Stddev	.00040
%RSD	85.431

#1	-.00019
#2	-.00076

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-70022-e-3-e Acquired: 6/16/2015 14:07:38 Type: Unk

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: Custom ID2: Custom ID3:

Comment: 280389 6010C

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	4657.7	59824.	7167.6
Stddev	3.6	286.	35.6
%RSD	.07811	.47806	.49619
#1	4655.1	60027.	7192.8
#2	4660.3	59622.	7142.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00062	.00108	.01038	.10817	.01031	-.00007	.00183	42.017	-.00036
Stddev	.00013	.00017	.00229	.00036	.00029	.00000	.00153	.119	.00012
%RSD	20.264	15.517	22.045	.32914	2.8386	3.3081	83.400	.28222	33.746

#1	.00053	.00119	.00876	.10842	.01052	-.00007	.00291	42.101	-.00027
#2	.00071	.00096	.01199	.10791	.01011	-.00007	.00075	41.933	-.00044

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00469	-.00058	-.00032	2.7521	.83582	.00092	5.6980	1.5906	-.00358
Stddev	.00005	.00013	.00014	.0345	.00218	.00065	.0030	.0015	.00000
%RSD	1.0120	21.691	42.969	1.2552	.26106	70.471	.05321	.09249	.08116

#1	.00473	-.00067	-.00023	2.7765	.83427	.00046	5.6959	1.5917	-.00358
#2	.00466	-.00049	-.00042	2.7276	.83736	.00138	5.7001	1.5896	-.00358

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0444	.00168	.00240	F -.00818	22.703	-.00447	.00676	1.3152	2.8144
Stddev	.0348	.00022	.00062	.00111	.031	.00062	.00289	.0054	.0115
%RSD	1.7031	12.813	25.688	13.617	.13727	13.770	42.742	.40955	.40955

#1	2.0690	.00153	.00196	-.00897	22.681	-.00404	.00881	1.3190	2.8226
#2	2.0197	.00183	.00284	-.00740	22.725	-.00491	.00472	1.3113	2.8063

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass				
High Limit				200.00					
Low Limit				-.00600					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00095	.21124	-.00062	-.00066	.00511	-.02653	-.00005	.00300	-.00068
Stddev	.00019	.00054	.00148	.00032	.00068	.02596	.00019	.00005	.00080
%RSD	20.124	.25403	240.03	48.424	13.338	97.853	426.53	1.7592	116.60

#1	-.00082	.21162	.00043	-.00044	.00463	-.04488	-.00018	.00304	-.00125
#2	-.00109	.21086	-.00167	-.00089	.00559	-.00817	.00009	.00297	-.00012

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4890.9	62533.	7171.7
Stddev	16.0	363.	26.5
%RSD	.32621	.58122	.36973

#1	4902.2	62790.	7153.0
#2	4879.7	62276.	7190.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00615	1.0828	.22003	.61871	.15704	.04957	-.00583	222.06	.05398
Stddev	.00009	.0021	.00125	.00266	.00036	.00001	.00066	1.83	.00031
%RSD	1.4947	.19505	.56973	.42919	.23212	.02650	11.322	.82554	.57832

#1	.00622	1.0843	.22092	.62059	.15730	.04956	-.00537	220.77	.05376
#2	.00609	1.0814	.21915	.61684	.15678	.04958	-.00630	223.36	.05420

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.07260	.05030	.05373	13.991	24.741	.11168	47.134	7.5045	.04446
Stddev	.00018	.00006	.00015	.005	.075	.00007	.065	.0694	.00016
%RSD	.24152	.12029	.27586	.03879	.30290	.06048	.13745	.92462	.36785

#1	.07273	.05025	.05362	13.995	24.688	.11173	47.179	7.5535	.04435
#2	.07248	.05034	.05383	13.987	24.794	.11164	47.088	7.4554	.04458

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	31.009	.05688	W 2.2253	.08907	112.31	.09766	.22556	11.318	24.220
Stddev	.762	.00051	.0159	.00114	.44	.00041	.00461	.070	.149
%RSD	2.4589	.89248	.71276	1.2853	.39147	.41765	2.0420	.61443	.61443

#1	31.549	.05652	2.2141	.08826	112.62	.09795	.22230	11.367	24.325
#2	30.470	.05724	2.2365	.08988	112.00	.09737	.22882	11.268	24.114

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09907	1.0889	.19315	.05072	.21320	.51536	.05274	.21791	.05151
Stddev	.00073	.0006	.00385	.00009	.00050	.00579	.00035	.00035	.00217
%RSD	.73880	.05375	1.9919	.16759	.23255	1.1243	.65571	.15850	4.2161

#1	.09959	1.0894	.19587	.05078	.21285	.51945	.05299	.21816	.04997
#2	.09855	1.0885	.19043	.05066	.21355	.51126	.05250	.21767	.05304

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4558.5	58522.	6935.8
Stddev	4.0	136.	12.2
%RSD	.08749	.23176	.17529

#1	4561.3	58426.	6944.4
#2	4555.6	58618.	6927.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00022	.00199	.00380	.00126	-.00023	.00007	.00252	.02413	-.00020
Stddev	.00064	.00010	.00084	.00025	.00009	.00008	.00190	.00010	.00001
%RSD	286.77	5.0712	21.990	20.124	39.997	108.95	75.360	.40099	2.9127

#1	.00067	.00192	.00321	.00143	-.00016	.00012	.00387	.02420	-.00019
#2	-.00023	.00206	.00440	.00108	-.00029	.00002	.00118	.02406	-.00020

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	.00020	-.00012	.03608	.06895	-.00203	.00605	.00049	-.00022
Stddev	.00006	.00028	.00054	.00090	.02136	.00036	.00132	.00010	.00018
%RSD	78.171	141.86	447.93	2.4836	30.975	17.699	21.773	20.295	80.889

#1	-.00012	.00039	.00026	.03672	.08406	-.00229	.00699	.00056	-.00035
#2	-.00003	.00000	-.00050	.03545	.05385	-.00178	.00512	.00042	-.00009

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10135	.00008	.00078	-.00013	.02572	-.00026	.00492	.01012	.02165
Stddev	.01112	.00011	.00132	.00210	.00324	.00186	.00181	.00043	.00092
%RSD	10.968	127.77	168.88	1640.6	12.580	708.86	36.694	4.2355	4.2355

#1	.10921	.00001	.00171	-.00161	.02344	-.00158	.00620	.00982	.02100
#2	.09349	.00016	-.00015	.00135	.02801	.00105	.00365	.01042	.02230

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00081	.00010	.00007	-.00045	-.00069	-.03138	.00013	.00041	.00001
Stddev	.00027	.00007	.00276	.00001	.00098	.04776	.00048	.00008	.00221
%RSD	33.628	70.167	4195.6	2.0493	141.77	152.18	365.72	19.622	14891.

#1	-.00100	.00015	-.00189	-.00046	-.00139	.00239	.00047	.00046	-.00155
#2	-.00061	.00005	.00202	-.00045	.00000	-.06515	-.00021	.00035	.00158

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4922.2	62867.	7064.7
Stddev	1.9	14.	33.2
%RSD	.03856	.02183	.46999

#1	4920.9	62877.	7041.2
#2	4923.6	62858.	7088.2

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00146	49.380	.00440	.00203	.00009	.00019	1.0011	-.00385	.00009	-.00123	.00050
Stddev	.00032	.024	.00144	.00088	.00007	.00000	.0015	.00121	.00015	.00003	.00019
%RSD	21.797	.04833	32.764	43.176	79.966	.55802	.15364	31.376	168.97	2.0847	37.415

#1	.00123	49.397	.00542	.00265	.00015	.00019	1.0000	-.00471	.00019	-.00122	.00037
#2	.00168	49.363	.00338	.00141	.00004	.00019	1.0022	-.00300	-.00002	-.00125	.00064

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00670	48.255	.09350	.00051	.00083	-.00210	-.00042	245.05	.00180	.00541	.00062
Stddev	.00062	.086	.03298	.00057	.00154	.00003	.00039	.01	.00018	.00023	.00058
%RSD	9.2392	.17767	35.272	111.69	185.04	1.2331	94.176	.00362	9.8273	4.2584	93.906

#1	.00626	48.316	.07018	.00011	.00192	-.00212	-.00070	245.06	.00193	.00557	.00103
#2	.00714	48.194	.11682	.00091	-.00026	-.00208	-.00014	245.04	.00168	.00525	.00021

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.7865	-.00286	-.00487	-.01189	-.02544	-.00649	.00048	4.9102	-.00132	.00220	W 10.634
Stddev	.0207	.00035	.00027	.00350	.00749	.00014	.00018	.0024	.00019	.00052	.094
%RSD	.43290	12.199	5.5550	29.456	29.456	2.1663	38.717	.04858	14.376	23.724	.87978

#1	4.8011	-.00262	-.00468	-.01436	-.03073	-.00659	.00035	4.9119	-.00118	.00183	10.701
#2	4.7718	-.00311	-.00506	-.00941	-.02014	-.00639	.00061	4.9085	-.00145	.00257	10.568

Check ?	Chk Pass	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value											10.000
Range											5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00303	.00052	.01811
Stddev	.00119	.00016	.00055
%RSD	39.196	31.740	3.0393

#1	.00387	.00040	.01850
#2	.00219	.00064	.01772

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4730.3	59144.	6941.0
Stddev	8.4	70.	33.9
%RSD	.17662	.11862	.48862

#1	4724.4	59194.	6965.0
#2	4736.2	59095.	6917.0

Sample Name: CCV-3333645 Acquired: 6/16/2015 14:20:40 Type: QC

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52170	.54836	1.0067	.50788	.49468	.48831	.00117	4.9039	.50349	.50562	.49190	.51128	2.4713
Stddev	.00030	.00079	.0047	.00085	.00033	.00114	.00011	.0021	.00040	.00047	.00031	.00075	.0264
%RSD	.05710	.14441	.46958	.16662	.06703	.23432	9.1236	.04315	.07880	.09348	.06248	.14704	1.0699

#1	.52191	.54892	1.0034	.50847	.49492	.48750	.00110	4.9054	.50321	.50529	.49168	.51181	2.4900
#2	.52149	.54780	1.0101	.50728	.49445	.48912	.00125	4.9024	.50377	.50595	.49211	.51075	2.4526

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.831	.99452	20.630	.50961	.50210	5.1244	.51809	1.0318	1.0413	.01603	1.0140	1.0143	4.8754
Stddev	.002	.00263	.028	.00136	.00189	.0041	.00111	.0076	.0084	.00012	.0056	.0096	.0040
%RSD	.00321	.26495	.13759	.26636	.37713	.08028	.21474	.73168	.80614	.76680	.54840	.94669	.08302

#1	49.830	.99265	20.610	.50865	.50344	5.1273	.51888	1.0372	1.0473	.01595	1.0180	1.0211	4.8725
#2	49.832	.99638	20.650	.51057	.50076	5.1214	.51731	1.0265	1.0354	.01612	1.0101	1.0075	4.8782

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.433	.99494	.49439	-.00477	.50584	1.0210	.00214	.51505	.50564	.49460
Stddev	.009	.00483	.00055	.00156	.00061	.0037	.00344	.00204	.00243	.00355
%RSD	.08302	.48555	.11046	32.584	.11983	.36083	160.97	.39640	.48037	.71706

#1	10.427	.99835	.49400	-.00367	.50541	1.0236	-.00030	.51649	.50392	.49209
#2	10.439	.99152	.49477	-.00587	.50627	1.0184	.00457	.51360	.50736	.49710

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4824.8	61011.	7106.3
Stddev	21.1	394.	14.1
%RSD	.43701	.64582	.19791

#1	4839.8	61290.	7096.4
#2	4809.9	60732.	7116.2

Sample Name: CCB Acquired: 6/16/2015 14:23:06 Type: QC
 Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00055	-.00011	.00442	.00057	-.00031	.00005	.00509	-.00495	-.00021	.00009	-.00028	.00012	-.00492
Stddev	.00024	.00010	.00085	.00052	.00023	.00017	.00094	.00129	.00007	.00016	.00016	.00052	.00425
%RSD	43.418	91.734	19.218	89.684	74.592	359.77	18.402	26.138	34.965	175.50	56.321	441.95	86.394
#1	.00038	-.00004	.00382	.00021	-.00048	.00017	.00575	-.00404	-.00015	-.00002	-.00040	-.00025	-.00192
#2	.00071	-.00018	.00502	.00094	-.00015	-.00007	.00442	-.00586	-.00026	.00021	-.00017	.00049	-.00793

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01384	-.00072	-.00124	.00001	-.00028	.07813	.00046	-.00123	-.00078	.00797	-.00084	.00083	.01276
Stddev	.10342	.00022	.00040	.00008	.00008	.00527	.00029	.00127	.00018	.00012	.00179	.00074	.00654
%RSD	747.10	30.560	32.118	978.73	28.954	6.7411	61.958	103.46	22.874	1.4714	214.89	89.627	51.249
#1	.08697	-.00057	-.00096	.00006	-.00022	.08186	.00026	-.00213	-.00090	.00805	-.00210	.00135	.00813
#2	-.05928	-.00088	-.00152	-.00005	-.00034	.07441	.00066	-.00033	-.00065	.00788	.00043	.00030	.01738

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02730	.00015	.00008	-.00190	-.00005	-.00039	.00526	.00007	.00095	-.00104
Stddev	.01399	.00129	.00011	.00089	.00035	.00118	.01016	.00008	.00050	.00131
%RSD	51.249	835.26	137.78	46.766	682.52	301.43	193.25	107.63	52.811	126.43
#1	.01741	.00107	.00015	-.00253	.00020	-.00123	.01244	.00002	.00131	-.00196
#2	.03719	-.00076	.00000	-.00127	-.00030	.00044	-.00193	.00012	.00060	-.00011

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4923.6	62797.	7088.9
Stddev	29.4	444.	37.4
%RSD	.59799	.70675	.52817
#1	4944.4	62483.	7115.4
#2	4902.8	63111.	7062.5

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01160	.11721	.01832	.10404	.00974	.00098	.11690	.21812	.00529	.01128	.01035	.01656
Stddev	.00036	.00004	.00363	.00048	.00041	.00004	.00112	.00174	.00010	.00012	.00002	.00025
%RSD	3.0665	.03529	19.803	.46103	4.1692	3.6744	.96001	.79782	1.9767	1.0541	.21082	1.4850

#1	.01185	.11718	.02088	.10438	.01003	.00101	.11769	.21689	.00522	.01119	.01036	.01638
#2	.01135	.11724	.01575	.10370	.00945	.00096	.11611	.21935	.00537	.01136	.01033	.01673

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10728	3.1876	.00786	.22509	.01081	.01964	1.1392	.04349	3.1242	.00986	.00820	.00879
Stddev	.00373	.0228	.00129	.00453	.00004	.00029	.0100	.00110	.0322	.00172	.00012	.00127
%RSD	3.4733	.71615	16.423	2.0106	.35045	1.4537	.87872	2.5261	1.0313	17.477	1.4626	14.407

#1	.10464	3.2038	.00695	.22189	.01079	.01944	1.1462	.04271	3.1014	.00864	.00829	.00969
#2	.10991	3.1715	.00877	.22829	.01084	.01984	1.1321	.04427	3.1470	.01108	.00812	.00790

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01708	.50002	1.0700	.10185	.01033	.01331	.01002	.01558	F .07912	.01092	.02434	.01492
Stddev	.00147	.01130	.0242	.00135	.00004	.00029	.00003	.00160	.03186	.00029	.00039	.00136
%RSD	8.6037	2.2596	2.2596	1.3295	.34096	2.2104	.30664	10.271	40.273	2.6787	1.5974	9.1026

#1	.01812	.49203	1.0529	.10090	.01030	.01311	.01005	.01445	.05659	.01071	.02407	.01588
#2	.01604	.50801	1.0871	.10281	.01035	.01352	.01000	.01671	.10165	.01113	.02462	.01396

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass							
Value									.06000			
Range									30.0000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4979.2	62544.	7045.3
Stddev	11.8	116.	56.2
%RSD	.23677	.18470	.79796

#1	4987.5	62625.	7005.5
#2	4970.9	62462.	7085.0

Sample Name: mb 280-280648/1-a Acquired: 6/16/2015 14:28:07 Type: Unk

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: 6/8 Custom ID2: Custom ID3:

Comment: 280648 6010C

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0029	.00286	.00365	.00018	.00000	.00002	.00156	.00200	-0.0010
Stddev	.00021	.00062	.00193	.00003	.0004	.00004	.00014	.00083	.00011
%RSD	72.364	21.676	52.983	18.271	71538.	192.03	8.6541	41.589	107.00

#1	-0.0014	.00330	.00501	.00015	-0.00031	.00005	.00147	.00141	-0.0003
#2	-0.0044	.00242	.00228	.00020	.00031	-0.00001	.00166	.00259	-0.0018

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00000	.00004	.00041	.01008	-0.00475	-0.00430	-0.00091	.00008	-0.00072
Stddev	.0003	.00016	.00004	.00086	.04927	.00061	.00034	.00007	.00008
%RSD	37163.	397.72	10.690	8.5111	1037.9	14.244	37.366	82.728	11.436

#1	-0.0023	-0.0007	.00038	.01068	-0.03959	-0.00386	-0.00114	.00013	-0.00078
#2	.00023	.00015	.00044	.00947	.03009	-0.00473	-0.00067	.00003	-0.00066

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05762	.00057	.00242	.00028	.00943	-0.00191	-0.00048	.00650	.01392
Stddev	.01210	.00033	.00005	.00092	.00154	.00140	.00058	.01189	.02545
%RSD	20.995	58.459	2.1052	327.17	16.299	73.263	119.41	182.83	182.83

#1	.04906	.00034	.00238	.00093	.00834	-0.00092	-0.00089	.01491	.03191
#2	.06617	.00081	.00246	-0.00037	.01052	-0.00290	-0.00008	-0.00190	-0.00408

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00011	.00005	-0.00166	-0.00007	-0.00025	.01065	.00060	.00059	-0.00052
Stddev	.00007	.00007	.00209	.00028	.00051	.01719	.00029	.00020	.00044
%RSD	63.883	143.87	126.37	418.70	206.94	161.38	49.146	33.481	83.581

#1	-0.0006	.00010	-0.00018	.00013	.00011	-0.00150	.00039	.00073	-0.00021
#2	-0.0015	.00000	-0.00314	-0.00026	-0.00061	.02280	.00080	.00045	-0.00083

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4973.0	62984.	7094.3
Stddev	14.8	37.	38.4
%RSD	.29846	.05830	.54068

#1	4962.5	62958.	7121.4
#2	4983.5	63010.	7067.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05512	2.0877	1.0063	1.0480	2.0090	.04976	2.0475	49.314	.10138
Stddev	.00071	.0002	.0109	.0001	.0060	.00007	.0015	.163	.00032
%RSD	1.2875	.00779	1.0786	.00588	.29975	.13312	.07139	.32964	.31300

#1	.05562	2.0876	.99859	1.0480	2.0047	.04971	2.0465	49.199	.10116
#2	.05462	2.0879	1.0139	1.0480	2.0133	.04980	2.0485	49.429	.10161

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50948	F .19944	.26059	.98678	51.097	1.0159	51.948	.51341	1.0222
Stddev	.00131	.00029	.00175	.00430	.292	.0025	.037	.00065	.0004
%RSD	.25753	.14370	.67212	.43552	.57129	.24188	.07171	.12637	.04241

#1	.50856	.19965	.25935	.98374	50.890	1.0141	51.974	.51387	1.0218
#2	.51041	.19924	.26183	.98982	51.303	1.0176	51.922	.51295	1.0225

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	51.501	.50709	10.477	.50149	1.9265	.50992	2.0332	9.9696	21.335
Stddev	.057	.00058	.009	.00034	.0018	.00107	.0021	.0532	.114
%RSD	.11123	.11366	.08141	.06760	.09208	.20911	.10411	.53324	.53324

#1	51.542	.50668	10.483	.50173	1.9252	.50917	2.0317	9.9320	21.254
#2	51.460	.50750	10.471	.50125	1.9277	.51068	2.0347	10.007	21.415

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9630	1.0031	.98407	1.0346	1.9661	2.0903	.52219	.50058	.50904
Stddev	.0047	.0024	.00367	.0008	.0046	.0038	.00014	.00383	.00089
%RSD	.23903	.23832	.37249	.07484	.23414	.18216	.02619	.76411	.17541

#1	1.9663	1.0014	.98148	1.0352	1.9628	2.0877	.52209	.50329	.50841
#2	1.9596	1.0048	.98666	1.0341	1.9693	2.0930	.52229	.49788	.50967

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4734.5	59733.	7031.2
Stddev	3.4	351.	26.9
%RSD	.07187	.58797	.38211

#1	4736.9	59484.	7050.2
#2	4732.1	59981.	7012.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05416	2.0751	.99604	1.0357	1.9911	.04910	2.0332	48.891	.10010
Stddev	.00068	.0082	.00261	.0004	.0037	.00000	.0015	.149	.00010
%RSD	1.2533	.39556	.26236	.03568	.18842	.00013	.07464	.30459	.09975

#1	.05368	2.0693	.99789	1.0359	1.9937	.04910	2.0343	48.996	.10003
#2	.05464	2.0809	.99419	1.0354	1.9884	.04910	2.0321	48.786	.10017

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49761	F .19810	.25730	.98446	50.742	1.0092	51.550	.50896	1.0116
Stddev	.00065	.00016	.00012	.00138	.001	.0024	.004	.00072	.0007
%RSD	.13154	.07975	.04819	.14057	.00151	.24103	.00836	.14091	.06805

#1	.49807	.19799	.25738	.98544	50.741	1.0109	51.553	.50946	1.0121
#2	.49715	.19821	.25721	.98348	50.742	1.0074	51.547	.50845	1.0111

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	51.385	.49902	10.375	.49549	1.9037	.50100	2.0184	9.8510	21.081
Stddev	.430	.00437	.013	.00186	.0030	.00096	.0048	.0056	.012
%RSD	.83697	.87496	.12686	.37527	.15825	.19075	.23995	.05691	.05691

#1	51.689	.50211	10.366	.49680	1.9058	.50168	2.0150	9.8470	21.073
#2	51.081	.49593	10.385	.49417	1.9015	.50032	2.0219	9.8550	21.090

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9399	.99517	.97312	1.0185	1.9473	2.0937	.51592	.49786	.50262
Stddev	.0053	.00271	.00369	.0006	.0020	.0143	.00114	.00049	.00218
%RSD	.27538	.27184	.37927	.05890	.10410	.68412	.22101	.09896	.43273

#1	1.9361	.99708	.97573	1.0189	1.9488	2.1039	.51672	.49751	.50416
#2	1.9436	.99325	.97051	1.0181	1.9459	2.0836	.51511	.49821	.50109

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4724.5	59568.	7056.4
Stddev	4.9	139.	12.7
%RSD	.10346	.23276	.17960

#1	4727.9	59666.	7047.5
#2	4721.0	59469.	7065.4

Sample Name: 280-70240-a-3-g Acquired: 6/16/2015 14:35:10 Type: Unk
 Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment: 280648 6010C

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00068	.27700	.01017	.07500	.83410	-.00001	-.00574	116.02	.00022
Stddev	.00043	.00052	.00121	.00026	.00032	.00001	.00181	.13	.00017
%RSD	63.113	.18794	11.878	.34811	.03795	124.72	31.547	.11331	79.762

#1	.00098	.27736	.00931	.07518	.83387	.00000	-.00702	115.93	.00034
#2	.00037	.27663	.01102	.07481	.83432	-.00002	-.00446	116.11	.00009

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00037	.00985	.00190	.35571	3.0392	.01749	23.159	.04456	-.00490
Stddev	.00007	.00010	.00069	.00455	.0564	.00032	.163	.00025	.00002
%RSD	17.780	1.0064	36.589	1.2805	1.8560	1.8108	.70351	.55725	.34546

#1	-.00042	.00992	.00141	.35249	2.9993	.01772	23.044	.04439	-.00491
#2	-.00033	.00978	.00239	.35893	3.0791	.01727	23.275	.04474	-.00489

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.1955	.00157	.02919	F -.01097	3.0375	-.00494	.01193	12.870	27.542
Stddev	.0107	.00026	.00043	.00071	.0010	.00050	.00273	.028	.059
%RSD	.13025	16.633	1.4603	6.4415	.03444	10.072	22.888	.21539	.21539

#1	8.2031	.00138	.02949	-.01147	3.0368	-.00459	.01000	12.851	27.500
#2	8.1880	.00175	.02889	-.01047	3.0383	-.00529	.01386	12.890	27.584

Check ? Chk Pass Chk Pass Chk Pass Chk Fail Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit 200.00
 Low Limit -.00600

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00130	.26374	-.00179	.00672	.00817	-.02650	.00126	.00702	-.00181
Stddev	.00024	.00056	.00070	.00038	.00054	.03838	.00032	.00028	.00315
%RSD	18.244	.21316	39.110	5.6432	6.6267	144.82	24.972	4.0322	173.69

#1	-.00146	.26335	-.00130	.00699	.00779	-.05365	.00104	.00722	-.00404
#2	-.00113	.26414	-.00229	.00645	.00855	.00064	.00148	.00682	.00041

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4798.6	60842.	7063.9
Stddev	4.8	311.	20.2
%RSD	.10046	.51130	.28561

#1	4795.2	61062.	7078.2
#2	4802.0	60622.	7049.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00021	.09462	.00756	.01550	.16565	.00003	.00329	23.099	.00006
Stddev	.00008	.00060	.00134	.00058	.00008	.00003	.00173	.028	.00013
%RSD	40.134	.63077	17.726	3.7368	.05028	123.02	52.432	.12319	236.67

#1	.00027	.09420	.00662	.01591	.16559	.00005	.00452	23.079	.00015
#2	.00015	.09505	.00851	.01509	.16571	.00000	.00207	23.119	-.00004

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00005	.00162	.00018	.07957	.61600	.00354	4.8034	.00912	-.00236
Stddev	.00025	.00004	.00038	.00204	.00322	.00340	.0030	.00009	.00008
%RSD	473.08	2.1862	206.51	2.5677	.52305	96.096	.06163	1.0267	3.3324

#1	-.00012	.00159	.00045	.08102	.61372	.00114	4.8013	.00905	-.00231
#2	.00023	.00164	-.00008	.07813	.61827	.00595	4.8055	.00919	-.00242

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.6725	.00062	.00586	W -.00563	.61038	-.00414	.00431	2.6006	5.5653
Stddev	.0346	.00007	.00254	.00089	.00306	.00061	.00234	.0326	.0697
%RSD	2.0676	10.774	43.382	15.766	.50156	14.713	54.356	1.2532	1.2532

#1	1.6970	.00066	.00766	-.00500	.61254	-.00457	.00265	2.6237	5.6146
#2	1.6481	.00057	.00407	-.00626	.60821	-.00371	.00597	2.5776	5.5160

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.00300					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00068	.05399	-.00120	.00219	.00411	.02985	.00033	.00399	-.00262
Stddev	.00018	.00050	.00099	.00030	.00004	.01044	.00045	.00017	.00077
%RSD	26.555	.93078	82.354	13.782	1.0531	34.968	137.80	4.3621	29.441

#1	-.00081	.05435	-.00190	.00198	.00408	.03723	.00001	.00387	-.00317
#2	-.00056	.05364	-.00050	.00240	.00414	.02247	.00065	.00412	-.00208

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4977.6	62917.	7179.4
Stddev	12.8	242.	8.1
%RSD	.25641	.38407	.11289

#1	4968.5	62746.	7185.1
#2	4986.6	63088.	7173.7

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05550	W 2.5104	W 2.7441	1.0149	1.1308	2.8556	.04974	F 2.0392	164.43
Stddev	.00053	.0053	.0340	.0004	.0004	.0021	.00005	.0050	.20
%RSD	.95781	.21232	1.2406	.03691	.03407	.07399	.10850	.24672	.12206

#1	.05588	2.5142	2.7200	1.0146	1.1311	2.8541	.04978	2.0357	164.29
#2	.05512	2.5067	2.7681	1.0151	1.1306	2.8571	.04970	2.0428	164.57

Check ?	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit		2.5000	500.00					.10000	
Low Limit		-.05000	3.2000					-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10170	.49828	W .21037	.26416	1.3533	54.705	1.0477	74.803	.55127
Stddev	.00027	.00459	.00043	.00024	.0047	.195	.0013	.128	.00044
%RSD	.26547	.92100	.20521	.09006	.34870	.35665	.12700	.17145	.08006

#1	.10189	.49504	.21067	.26400	1.3500	54.567	1.0467	74.712	.55096
#2	.10151	.50153	.21006	.26433	1.3567	54.843	1.0486	74.893	.55158

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			.10000						
Low Limit			-.01000						

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0278	60.492	.50122	W 10.700	.48440	5.0928	.50893	2.0362	23.035
Stddev	.0022	.287	.00108	.003	.00220	.0112	.00220	.0081	.200
%RSD	.21029	.47446	.21638	.03084	.45327	.22055	.43146	.40031	.86746

#1	1.0294	60.289	.50199	10.703	.48595	5.1007	.51048	2.0420	23.176
#2	1.0263	60.694	.50046	10.698	.48284	5.0848	.50738	2.0304	22.894

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				2.0000					
Low Limit				-1.0000					

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.295	1.9475	1.2719	.98286	1.0472	1.9075	2.0789	.52433	.49244
Stddev	.428	.0102	.0014	.00284	.0008	.0039	.0021	.00035	.00104
%RSD	.86746	.52281	.10757	.28901	.08111	.20645	.09857	.06614	.21165

#1	49.597	1.9547	1.2709	.98487	1.0466	1.9103	2.0774	.52457	.49318
#2	48.992	1.9403	1.2729	.98086	1.0478	1.9047	2.0803	.52408	.49170

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.51282
Stddev	.00002
%RSD	.00402

#1	.51280
#2	.51283

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-70240-a-3-h ms Acquired: 6/16/2015 14:40:26 Type: Unk
Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
User: S. Scott Prep Date: Custom ID2: Custom ID3:
Comment: 280648 6010C

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	4648.7	59133.	7065.7
Stddev	17.1	7.	74.3
%RSD	.36857	.01238	1.0520
#1	4636.5	59128.	7118.3
#2	4660.8	59139.	7013.2

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05595	W 2.5072	W 2.7188	1.0066	1.1247	2.8548	.04965	F 2.0080	166.01
Stddev	.00085	.0034	.0460	.0041	.0011	.0002	.00001	.0008	.15
%RSD	1.5126	.13628	1.6924	.40549	.09650	.00547	.02399	.04243	.08741

#1	.05535	2.5096	2.6862	1.0037	1.1239	2.8547	.04964	2.0074	166.12
#2	.05655	2.5048	2.7513	1.0095	1.1254	2.8549	.04966	2.0086	165.91

Check ?	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit		2.5000	500.00					.10000	
Low Limit		-.05000	3.2000					-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10087	.49295	W .20817	.26257	1.3575	54.763	1.0436	74.884	.55362
Stddev	.00005	.00070	.00025	.00009	.0144	.155	.0002	.134	.00012
%RSD	.04659	.14226	.11947	.03313	1.0583	.28392	.01748	.17933	.02233

#1	.10090	.49345	.20799	.26251	1.3473	54.653	1.0435	74.979	.55371
#2	.10083	.49245	.20835	.26263	1.3676	54.873	1.0437	74.789	.55353

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			.10000						
Low Limit			-.01000						

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0187	59.751	.49854	W 10.609	.48417	5.0940	.50373	2.0236	23.085
Stddev	.0011	.081	.00056	.008	.00462	.0006	.00077	.0066	.060
%RSD	.10845	.13574	.11221	.07374	.95409	.01221	.15346	.32396	.25955

#1	1.0179	59.694	.49893	10.603	.48743	5.0945	.50318	2.0190	23.043
#2	1.0195	59.808	.49814	10.614	.48090	5.0936	.50428	2.0282	23.128

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				2.0000					
Low Limit				-1.0000					

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.402	1.9361	1.2706	.98240	1.0448	1.8908	2.0705	.52506	.49504
Stddev	.128	.0028	.0007	.00128	.0001	.0014	.0027	.00004	.00213
%RSD	.25955	.14586	.05419	.13054	.00577	.07226	.13243	.00845	.43062

#1	49.312	1.9381	1.2701	.98149	1.0449	1.8918	2.0724	.52503	.49655
#2	49.493	1.9341	1.2711	.98330	1.0448	1.8898	2.0685	.52509	.49353

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.51137
Stddev	.00048
%RSD	.09465

#1	.51171
#2	.51103

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-70240-a-3-i msd Acquired: 6/16/2015 14:42:47 Type: Unk
Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
User: S. Scott Prep Date: Custom ID2: Custom ID3:
Comment: 280648 6010C

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	4659.2	58718.	6991.7
Stddev	1.8	161.	12.3
%RSD	.03848	.27458	.17548
#1	4657.9	58604.	6983.1
#2	4660.4	58832.	7000.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00693	1.4889	.21127	.17831	.91022	.04981	-.00616	131.50	.05282
Stddev	.00049	.0106	.00105	.00028	.00223	.00004	.00029	.38	.00053
%RSD	7.0217	.70994	.49508	.15571	.24535	.08115	4.7671	.28990	1.0101

#1	.00658	1.4964	.21201	.17851	.91180	.04984	-.00595	131.77	.05244
#2	.00727	1.4814	.21053	.17812	.90865	.04978	-.00636	131.23	.05320

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05089	.05989	.05474	1.3678	23.500	.12034	43.355	.09625	.04571
Stddev	.00020	.00027	.00024	.0044	.057	.00210	.034	.00116	.00066
%RSD	.39307	.45867	.42973	.32327	.24167	1.7422	.07838	1.2087	1.4349

#1	.05075	.05970	.05458	1.3709	23.540	.12183	43.380	.09542	.04525
#2	.05103	.06008	.05491	1.3646	23.460	.11886	43.331	.09707	.04617

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	28.888	.05268	W 2.1973	.08997	3.0091	.09717	.21399	17.857	38.215
Stddev	.233	.00031	.0079	.00049	.0264	.00046	.00300	.089	.191
%RSD	.80526	.59092	.35887	.54683	.87696	.47246	1.4021	.50055	.50055

#1	28.723	.05246	2.1918	.08962	2.9904	.09749	.21187	17.921	38.350
#2	29.052	.05290	2.2029	.09032	3.0277	.09684	.21611	17.794	38.080

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09782	.30621	.19389	.06932	.20842	.56605	.05362	.22018	.05208
Stddev	.00053	.00043	.00004	.00200	.00111	.02917	.00065	.00015	.00167
%RSD	.54226	.13968	.02155	2.8807	.53201	5.1529	1.2104	.06672	3.2086

#1	.09744	.30651	.19386	.06791	.20763	.58667	.05407	.22028	.05090
#2	.09819	.30591	.19392	.07073	.20920	.54542	.05316	.22007	.05327

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4772.8	59963.	7142.6
Stddev	8.8	206.	24.5
%RSD	.18353	.34287	.34303

#1	4766.6	60108.	7125.3
#2	4779.0	59817.	7159.9

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00089	49.249	.00469	.00282	.00034	.00014	.99308	.01934	.00000	-.00129	.00051
Stddev	.00079	.131	.00033	.00038	.00027	.00006	.00364	.00468	.00013	.00014	.00012
%RSD	88.568	.26625	7.0168	13.602	78.420	45.540	.36697	24.211	18296.	11.150	24.413

#1	.00144	49.157	.00446	.00309	.00053	.00018	.99050	.02265	.00009	-.00140	.00060
#2	.00033	49.342	.00492	.00255	.00015	.00009	.99565	.01603	-.00009	-.00119	.00042

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00610	48.474	.25820	.00313	.00295	-.00204	-.00045	242.68	.00326	.00769	.00140
Stddev	.00024	.136	.01008	.00105	.00022	.00000	.00008	.04	.00013	.00198	.00050
%RSD	3.8846	.27995	3.9029	33.671	7.3520	.09146	17.873	.01802	3.8593	25.719	35.758

#1	.00593	48.378	.26533	.00388	.00310	-.00204	-.00051	242.71	.00335	.00629	.00105
#2	.00627	48.570	.25108	.00239	.00279	-.00205	-.00039	242.65	.00317	.00909	.00175

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4.6978	-.00238	-.00304	-.00388	-.00831	-.00708	.00036	4.8880	-.00099	.00134	W 10.574
Stddev	.0086	.00217	.00031	.01197	.02561	.00023	.00007	.0123	.00029	.00112	.029
%RSD	.18271	91.175	10.227	308.12	308.12	3.3164	19.351	.25159	28.845	83.661	.27599

#1	4.7039	-.00392	-.00282	.00458	.00980	-.00692	.00041	4.8967	-.00079	.00213	10.554
#2	4.6917	-.00085	-.00326	-.01235	-.02643	-.00725	.00031	4.8793	-.00119	.00055	10.595

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value	5.0000										10.000
Range	-5.0000%										5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00228	.00292	.01875
Stddev	.00015	.00012	.00100
%RSD	6.6487	4.0461	5.3284

#1	.00217	.00284	.01945
#2	.00239	.00301	.01804

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4788.6	59887.	7116.0
Stddev	9.7	97.	18.6
%RSD	.20233	.16127	.26076

#1	4781.7	59819.	7129.1
#2	4795.4	59956.	7102.9

Sample Name: CCV-3333645 Acquired: 6/16/2015 14:50:12 Type: QC

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52720	.54555	.99334	.50762	.49213	.48584	-.00078	4.8771	.50291	.50565	.48532	.51298	2.4732
Stddev	.00328	.00027	.00570	.00567	.00015	.00051	.00086	.0032	.00091	.00036	.00048	.00276	.0133
%RSD	.62303	.05024	.57397	1.1176	.02999	.10543	111.23	.06536	.18017	.07176	.09911	.53861	.53725

#1	.52952	.54574	.99737	.51163	.49224	.48548	-.00138	4.8749	.50355	.50539	.48566	.51494	2.4638
#2	.52487	.54536	.98931	.50361	.49203	.48620	-.00017	4.8794	.50227	.50591	.48498	.51103	2.4826

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.879	.99374	20.660	.50911	.48944	5.1514	.51150	1.0201	1.0249	.01007	.99870	.99215	4.9530
Stddev	.127	.00288	.037	.00107	.00775	.0157	.00657	.0156	.0158	.00087	.01888	.01510	.0059
%RSD	.25451	.29003	.17715	.21054	1.5834	.30548	1.2836	1.5275	1.5429	8.6521	1.8903	1.5223	.11861

#1	49.789	.99578	20.686	.50987	.49492	5.1625	.51615	1.0311	1.0360	.01068	1.0120	1.0028	4.9489
#2	49.968	.99170	20.634	.50835	.48396	5.1402	.50686	1.0091	1.0137	.00945	.98535	.98147	4.9572

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.599	.96567	.49229	-.00232	.50589	.99443	-.02171	.51222	.49756	.50013
Stddev	.013	.01402	.00055	.00019	.00026	.01496	.02865	.00207	.00084	.00308
%RSD	.11861	1.4516	.11130	8.0711	.05173	1.5041	131.98	.40455	.16848	.61556

#1	10.591	.97558	.49190	-.00219	.50608	1.0050	-.04197	.51369	.49696	.50231
#2	10.608	.95576	.49268	-.00246	.50571	.98385	-.00145	.51076	.49815	.49795

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4880.7	61660.	7132.4
Stddev	9.7	34.	22.4
%RSD	.19903	.05448	.31351

#1	4887.6	61636.	7116.6
#2	4873.8	61684.	7148.3

Sample Name: CCB Acquired: 6/16/2015 14:52:38 Type: QC
 Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00040	.00010	W .00742	-.00016	-.00028	.00001	.00492	-.00302	-.00024	.00004	-.00018
Stddev	.00011	.00001	.00053	.00027	.00013	.00001	.00063	.00119	.00013	.00013	.00003
%RSD	27.654	13.079	7.1849	172.35	45.151	74.126	12.807	39.492	56.018	320.96	18.057

#1	.00032	.00011	.00705	-.00035	-.00019	.00002	.00448	-.00386	-.00014	.00013	-.00015
#2	.00047	.00009	.00780	.00003	-.00037	.00001	.00537	-.00218	-.00033	-.00005	-.00020

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass							
High Limit			.00500								
Low Limit			-.00500								

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00039	-.00328	.09984	.00061	.00010	-.00004	-.00007	.07900	.00032	-.00013	.00025
Stddev	.00024	.00147	.03729	.00053	.00151	.00001	.00011	.00110	.00006	.00167	.00026
%RSD	62.384	44.659	37.349	86.457	1464.6	18.316	153.76	1.3969	19.628	1246.6	100.95

#1	-.00022	-.00225	.12620	.00024	-.00096	-.00005	-.00016	.07978	.00037	-.00132	.00007
#2	-.00056	-.00432	.07347	.00099	.00117	-.00004	.00001	.07822	.00028	.00105	.00043

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00559	-.00290	.00192	-.01094	-.02340	.00024	.00001	-.00021	-.00054	-.00006	.00773
Stddev	.00035	.00281	.00112	.00360	.00769	.00060	.00007	.00165	.00020	.00264	.03805
%RSD	6.2936	97.137	58.537	32.875	32.875	252.91	1167.3	780.91	37.414	4266.8	492.28

#1	.00584	-.00488	.00112	-.01348	-.02884	.00066	.00006	.00096	-.00068	-.00193	-.01917
#2	.00534	-.00091	.00271	-.00839	-.01796	-.00019	-.00004	-.00138	-.00040	.00180	.03463

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00020	.00021	-.00076
Stddev	.00028	.00031	.00214
%RSD	136.27	142.91	281.05

#1	.00040	.00000	-.00228
#2	.00001	.00043	.00075

Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4995.3	62992.	7162.8
Stddev	7.2	68.	38.8
%RSD	.14412	.10843	.54167

#1	4990.2	63040.	7135.4
#2	5000.4	62943.	7190.3

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01185	.11666	.01750	.10537	.00967	.00101	.11635	.20992	.00526	.01132	.01035	.01553
Stddev	.00006	.00049	.00117	.00028	.00047	.00007	.00414	.00075	.00000	.00005	.00030	.00004
%RSD	.54602	.42164	6.7132	.26715	4.8459	7.0273	3.5619	.35522	.04613	.41140	2.9074	.28048

#1	.01190	.11701	.01667	.10517	.01000	.00096	.11928	.21045	.00526	.01135	.01014	.01549
#2	.01181	.11631	.01833	.10557	.00934	.00106	.11342	.20939	.00526	.01128	.01056	.01556

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10083	3.1719	.01110	.22826	.01067	.01953	1.1218	.04466	3.1518	.00904	.00839	F .00643
Stddev	.00046	.0301	.00080	.00343	.00020	.00046	.0066	.00071	.0204	.00153	.00183	.00008
%RSD	.45870	.94948	7.1736	1.5012	1.8889	2.3626	.59265	1.5934	.64662	16.960	21.791	1.1904

#1	.10116	3.1932	.01167	.23068	.01082	.01921	1.1265	.04416	3.1374	.01012	.00710	.00638
#2	.10051	3.1506	.01054	.22583	.01053	.01986	1.1171	.04517	3.1662	.00795	.00969	.00649

Check ?	Chk Pass	None	Chk Fail									
Value												.01000
Range												-30.000%

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01536	.49274	1.0545	.10175	.01033	.01318	.01008	.01479	.04723	.01077	.02402	.01360
Stddev	.00187	.02001	.0428	.00062	.00010	.00062	.00005	.00012	.00910	.00046	.00005	.00115
%RSD	12.172	4.0611	4.0611	.61405	.98338	4.6971	.50515	.83662	19.268	4.2467	.22419	8.4311

#1	.01668	.50689	1.0847	.10131	.01040	.01362	.01011	.01470	.05367	.01045	.02398	.01279
#2	.01403	.47859	1.0242	.10219	.01026	.01275	.01004	.01488	.04080	.01109	.02405	.01441

Check ?	Chk Pass											
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5017.4	62925.	7209.0
Stddev	5.2	119.	19.7
%RSD	.10414	.18954	.27362

#1	5013.7	62841.	7222.9
#2	5021.1	63009.	7195.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00107	.09271	.00880	.07760	.84619	-0.00003	-0.00605	117.42	.00114
Stddev	.00021	.00062	.00003	.00036	.00198	.00006	.00179	.34	.00020
%RSD	19.700	.67370	.31958	.46363	.23373	193.10	29.586	.29071	17.590

#1	.00092	.09315	.00878	.07734	.84758	-0.00008	-0.00732	117.66	.00100
#2	.00122	.09227	.00882	.07785	.84479	.00001	-0.00479	117.18	.00129

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00004	.00623	.00184	.17138	3.0744	.01669	23.806	.02435	-0.00528
Stddev	.00019	.00005	.00035	.00041	.0684	.00072	.015	.00004	.00011
%RSD	423.13	.85137	19.151	.23723	2.2234	4.3104	.06202	.16321	2.1043

#1	-0.00018	.00619	.00159	.17109	3.1228	.01719	23.796	.02438	-0.00520
#2	.00009	.00626	.00209	.17166	3.0261	.01618	23.817	.02432	-0.00536

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.4016	.00083	.02509	F -.01209	3.1679	-0.00622	.00924	12.821	27.438
Stddev	.0003	.00006	.00316	.00103	.0425	.00023	.00369	.070	.149
%RSD	.00299	7.1114	12.578	8.5541	1.3425	3.6671	39.944	.54421	.54421

#1	8.4014	.00079	.02286	-.01282	3.1980	-.00638	.00663	12.871	27.543
#2	8.4018	.00087	.02732	-.01136	3.1378	-.00606	.01185	12.772	27.332

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass				
High Limit				200.00					
Low Limit				-.00600					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00173	.26840	-.00260	.00155	.00911	.01177	.00086	.01137	-0.00006
Stddev	.00047	.00098	.00091	.00052	.00217	.01300	.00046	.00004	.00053
%RSD	27.018	.36336	34.947	33.839	23.811	110.47	53.635	.34823	899.23

#1	.00206	.26909	-.00325	.00192	.01064	.02096	.00118	.01139	.00031
#2	.00140	.26771	-.00196	.00118	.00757	.00258	.00053	.01134	-.00043

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4808.4	60827.	7147.3
Stddev	7.3	19.	68.0
%RSD	.15266	.03051	.95148

#1	4813.6	60840.	7099.2
#2	4803.2	60813.	7195.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00045	.01582	.01091	.05413	.57213	-.00001	-.00536	95.749	.00022
Stddev	.00005	.00025	.00419	.00043	.00186	.00008	.00027	.334	.00002
%RSD	11.491	1.5901	38.401	.78750	.32516	756.57	5.0961	.34871	9.4082

#1	.00049	.01564	.01388	.05383	.57082	.00004	-.00555	95.513	.00023
#2	.00042	.01599	.00795	.05443	.57345	-.00006	-.00516	95.985	.00020

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00058	.00650	.00480	.04925	2.8713	.01848	20.592	.01275	-.00349
Stddev	.00024	.00014	.00061	.00102	.0005	.00036	.044	.00005	.00015
%RSD	41.569	2.1206	12.805	2.0781	.01850	1.9290	.21334	.42671	4.2172

#1	-.00076	.00641	.00524	.04998	2.8716	.01873	20.561	.01271	-.00359
#2	-.00041	.00660	.00437	.04853	2.8709	.01823	20.623	.01279	-.00338

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.428	.00606	.03914	F -.01000	3.9999	-.00605	.01011	11.319	24.223
Stddev	.391	.00028	.00117	.00171	.0038	.00218	.00209	.039	.083
%RSD	3.4231	4.7035	2.9857	17.057	.09469	36.118	20.669	.34296	.34296

#1	11.152	.00586	.03996	-.00880	3.9972	-.00450	.01158	11.292	24.164
#2	11.705	.00626	.03831	-.01121	4.0025	-.00759	.00863	11.346	24.281

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass				
High Limit				200.00					
Low Limit				-.00600					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00066	.23427	-.00151	-.00065	.00973	-.03600	.00081	.05003	-.00091
Stddev	.00025	.00058	.00089	.00017	.00226	.02806	.00013	.00033	.00036
%RSD	38.507	.24661	59.039	26.019	23.212	77.931	15.571	.66433	39.028

#1	-.00084	.23386	-.00214	-.00077	.01132	-.01616	.00072	.05027	-.00066
#2	-.00048	.23467	-.00088	-.00053	.00813	-.05584	.00090	.04980	-.00117

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4801.6	60758.	7128.9
Stddev	19.3	70.	45.2
%RSD	.40217	.11496	.63361

#1	4815.3	60808.	7160.9
#2	4788.0	60709.	7097.0

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00016	3.6007	.01129	.06592	.59736	.00018	-.00392	99.901	.00034
Stddev	.00034	.0276	.00387	.00077	.00097	.00003	.00229	.092	.00004
%RSD	217.67	.76624	34.233	1.1647	.16214	19.404	58.524	.09218	13.120

#1	-.00008	3.5812	.00856	.06646	.59805	.00015	-.00554	99.836	.00031
#2	.00040	3.6202	.01402	.06538	.59668	.00020	-.00230	99.966	.00037

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00172	.01864	.00663	4.8637	3.8575	.02027	19.881	.15472	-.00453
Stddev	.00012	.00016	.00025	.0127	.0246	.00227	.073	.00018	.00048
%RSD	7.0747	.85309	3.7812	.26059	.63907	11.223	.36844	.11466	10.695

#1	.00181	.01853	.00645	4.8548	3.8400	.01866	19.933	.15484	-.00419
#2	.00163	.01875	.00680	4.8727	3.8749	.02188	19.829	.15459	-.00487

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.069	.00575	.20621	F -.00831	6.0661	-.00592	.01092	18.860	40.360
Stddev	.362	.00028	.00340	.00051	.0984	.00062	.00080	.249	.533
%RSD	1.6406	4.8910	1.6501	6.1502	1.6214	10.474	7.2997	1.3217	1.3217

#1	21.813	.00555	.20380	-.00867	5.9966	-.00548	.01148	18.683	39.983
#2	22.325	.00595	.20862	-.00795	6.1357	-.00636	.01035	19.036	40.737

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass				
High Limit				200.00					
Low Limit				-.00600					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00002	.22191	.00068	.07602	.01071	-.02485	.00821	.02554	.00219
Stddev	.00014	.00010	.00074	.00057	.00023	.01209	.00039	.00055	.00145
%RSD	879.70	.04529	109.99	.74412	2.1925	48.637	4.7933	2.1546	66.129

#1	.00012	.22198	.00120	.07642	.01088	-.01631	.00793	.02515	.00116
#2	-.00008	.22184	.00015	.07562	.01055	-.03340	.00849	.02593	.00321

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4846.7	60654.	7150.5
Stddev	8.3	346.	8.1
%RSD	.17026	.57027	.11278

#1	4852.5	60409.	7144.8
#2	4840.8	60898.	7156.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00145	.13757	.01739	.06397	.38918	.00056	-.00321	76.375	.00031
Stddev	.00064	.00020	.00024	.00016	.00051	.00002	.00164	.012	.00014
%RSD	44.170	.14800	1.3726	.25444	.13006	3.0190	51.149	.01584	44.722

#1	.00190	.13771	.01722	.06386	.38882	.00057	-.00437	76.366	.00021
#2	.00100	.13742	.01755	.06409	.38954	.00054	-.00205	76.383	.00040

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.26540	-.00039	-.00023	45.621	21.479	.07036	45.850	W 15.966	-.00631
Stddev	.00000	.00003	.00022	.032	.018	.00058	.021	.103	.00021
%RSD	.00064	8.4822	97.178	.06924	.08273	.82892	.04535	.64445	3.3776

#1	.26540	-.00041	-.00038	45.598	21.492	.07078	45.836	16.039	-.00616
#2	.26540	-.00036	-.00007	45.643	21.467	.06995	45.865	15.893	-.00646

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								10.000	
Low Limit								-.01000	

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	129.92	.07785	.44229	F -.00842	1.2401	-.00587	.01616	27.837	59.571
Stddev	.53	.00048	.00310	.00222	.0057	.00229	.00081	.006	.013
%RSD	.40943	.62258	.70063	26.414	.45906	38.938	5.0024	.02189	.02189

#1	130.30	.07751	.44448	-.00685	1.2361	-.00749	.01673	27.833	59.562
#2	129.54	.07820	.44009	-.00999	1.2441	-.00425	.01559	27.841	59.580

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass				
High Limit				200.00					
Low Limit				-.00600					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00215	.86242	-.00436	-.00064	.00877	-.02939	.00134	.21135	.00101
Stddev	.00153	.00073	.00018	.00046	.00089	.03813	.00027	.00095	.00231
%RSD	71.106	.08436	4.1938	72.080	10.134	129.75	20.249	.45029	227.48

#1	.00107	.86293	-.00423	-.00031	.00814	-.05635	.00115	.21068	-.00062
#2	.00323	.86191	-.00449	-.00097	.00940	-.00243	.00153	.21202	.00265

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4718.8	59034.	7215.1
Stddev	4.5	193.	9.6
%RSD	.09517	.32742	.13267

#1	4715.6	58897.	7221.9
#2	4722.0	59171.	7208.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00076	.00559	.01055	.28568	.09828	.00002	-.00030	23.168	.00003
Stddev	.00037	.00005	.00369	.00149	.00075	.00005	.00122	.051	.00012
%RSD	48.917	.84451	34.995	.52094	.75943	212.10	413.65	.22135	433.28

#1	.00102	.00562	.01317	.28463	.09881	-.00001	-.00116	23.131	.00011
#2	.00050	.00555	.00794	.28674	.09775	.00006	.00057	23.204	-.00006

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00055	-.00010	.00068	.02286	3.4071	.03827	11.009	.00089	.00270
Stddev	.00008	.00008	.00023	.00140	.0041	.00183	.049	.00003	.00007
%RSD	14.112	78.435	33.029	6.1162	.12090	4.7873	.44675	3.1006	2.6039

#1	-.00049	-.00016	.00052	.02187	3.4042	.03698	10.974	.00091	.00265
#2	-.00060	-.00004	.00084	.02385	3.4100	.03957	11.044	.00087	.00275

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	134.04	.00206	.04900	F -.00607	19.465	-.00451	.00675	9.4325	20.186
Stddev	.19	.00017	.00113	.00086	.043	.00022	.00003	.1500	.321
%RSD	.13828	8.4629	2.3139	14.129	.21929	4.9249	.39159	1.5903	1.5903

#1	133.91	.00218	.04980	-.00546	19.435	-.00467	.00673	9.3264	19.959
#2	134.17	.00194	.04820	-.00667	19.496	-.00435	.00677	9.5386	20.413

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass				
High Limit				200.00					
Low Limit				-.00600					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00080	.59233	-.00125	-.00061	.00360	-.01212	-.00102	.01078	-.00068
Stddev	.00024	.00082	.00123	.00034	.00080	.04823	.00089	.00022	.00093
%RSD	30.480	.13838	98.737	55.951	22.357	397.89	86.378	2.0443	136.78

#1	-.00098	.59175	-.00211	-.00086	.00303	.02198	-.00165	.01062	-.00002
#2	-.00063	.59291	-.00038	-.00037	.00417	-.04623	-.00040	.01094	-.00133

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4820.4	60415.	7222.8
Stddev	7.7	77.	35.0
%RSD	.15969	.12813	.48456

#1	4825.8	60360.	7198.0
#2	4814.9	60470.	7247.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00028	.00147	.00410	.05838	.01947	.00007	.00520	4.6865	-.00019
Stddev	.00008	.00001	.00129	.00051	.00032	.00006	.00012	.0073	.00007
%RSD	28.666	.39114	31.476	.86559	1.6252	94.318	2.3649	.15461	37.562

#1	.00022	.00148	.00319	.05802	.01970	.00011	.00529	4.6814	-.00024
#2	.00034	.00147	.00502	.05874	.01925	.00002	.00512	4.6917	-.00014

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00010	-.00010	.00000	.00575	.77859	.00847	2.3065	.00026	.00017
Stddev	.00003	.00021	.00027	.00161	.06593	.00162	.0020	.00009	.00012
%RSD	31.094	205.09	7594.4	28.042	8.4674	19.100	.08523	33.862	69.806

#1	.00007	.00005	.00020	.00689	.82521	.00961	2.3079	.00032	.00026
#2	.00012	-.00025	-.00019	.00461	.73197	.00732	2.3052	.00020	.00009

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	28.333	.00062	.01100	W -.00305	3.9838	-.00547	.00000	1.8684	3.9983
Stddev	.218	.00008	.00219	.00146	.0301	.00166	.00124	.0185	.0395
%RSD	.76789	13.316	19.888	47.888	.75437	30.449	26325.	.98734	.98734

#1	28.179	.00068	.01254	-.00202	4.0051	-.00429	-.00087	1.8553	3.9704
#2	28.487	.00056	.00945	-.00409	3.9625	-.00664	.00088	1.8814	4.0262

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.00300					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	.11956	-.00261	-.00012	.00076	.01478	.00009	.00395	-.00149
Stddev	.00061	.00006	.00039	.00024	.00016	.00565	.00006	.00066	.00074
%RSD	735.54	.04766	15.133	206.42	21.527	38.258	71.936	16.709	49.453

#1	.00035	.11951	-.00233	-.00028	.00065	.01878	.00014	.00349	-.00201
#2	-.00051	.11960	-.00289	.00005	.00088	.01078	.00004	.00442	-.00097

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	5018.7	63854.	7329.1
Stddev	20.1	128.	3.9
%RSD	.40017	.20049	.05355

#1	5032.9	63944.	7331.9
#2	5004.5	63763.	7326.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05470	1.9855	.99605	1.3089	2.0566	.04845	F 1.9591	70.907	.09885
Stddev	.00011	.0115	.00180	.0068	.0072	.00001	.0159	.163	.00049
%RSD	.19241	.58092	.18076	.51903	.35188	.01288	.80909	.23032	.49999

#1	.05462	1.9937	.99478	1.3137	2.0618	.04846	1.9703	71.022	.09920
#2	.05477	1.9774	.99733	1.3041	2.0515	.04845	1.9479	70.791	.09850

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48970	W .19256	.25493	.97197	53.754	1.0283	61.236	.50279	.99095
Stddev	.00310	.00045	.00001	.00080	.123	.0037	.112	.00047	.00534
%RSD	.63230	.23239	.00326	.08280	.22803	.35895	.18316	.09309	.53857

#1	.48751	.19287	.25493	.97140	53.841	1.0309	61.157	.50245	.99472
#2	.49189	.19224	.25494	.97254	53.668	1.0257	61.316	.50312	.98718

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	183.39	.49319	W 10.506	.47750	21.781	.49331	1.9918	18.840	40.317
Stddev	1.12	.00074	.043	.00218	.144	.00113	.0047	.019	.040
%RSD	.60894	.14934	.40453	.45579	.66017	.22945	.23741	.09847	.09847

#1	184.18	.49371	10.536	.47903	21.883	.49411	1.9952	18.827	40.289
#2	182.61	.49267	10.476	.47596	21.679	.49251	1.9885	18.853	40.345

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.8669	1.5806	.96814	1.0162	1.8120	2.0239	.51723	.49838	.49728
Stddev	.0111	.0049	.00237	.0013	.0121	.0034	.00099	.00243	.00003
%RSD	.59671	.31262	.24469	.12961	.66916	.16672	.19093	.48672	.00679

#1	1.8748	1.5841	.96981	1.0172	1.8205	2.0215	.51793	.50009	.49726
#2	1.8590	1.5771	.96646	1.0153	1.8034	2.0263	.51653	.49666	.49731

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4735.5	59058.	7192.8
Stddev	13.6	153.	27.4
%RSD	.28628	.25876	.38060

#1	4726.0	59166.	7173.5
#2	4745.1	58950.	7212.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05521	2.0226	1.0126	1.3335	2.0984	.04943	F 1.9893	71.685	.10062
Stddev	.00017	.0017	.0019	.0011	.0067	.00001	.0017	.119	.00019
%RSD	.31103	.08466	.18422	.08250	.32077	.02169	.08571	.16548	.18988

#1	.05533	2.0214	1.0139	1.3343	2.1032	.04943	1.9881	71.768	.10049
#2	.05509	2.0238	1.0113	1.3327	2.0936	.04942	1.9905	71.601	.10076

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49900	W .19582	.25853	.98667	54.947	1.0578	62.135	.51135	1.0140
Stddev	.00397	.00080	.00051	.00066	.123	.0012	.090	.00092	.0024
%RSD	.79461	.41003	.19804	.06729	.22379	.11146	.14563	.17990	.23681

#1	.50181	.19525	.25817	.98714	54.860	1.0586	62.071	.51070	1.0123
#2	.49620	.19638	.25890	.98620	55.034	1.0570	62.199	.51200	1.0157

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	184.66	.49802	W 10.713	.48436	21.761	.50570	2.0406	19.086	40.845
Stddev	.58	.00420	.015	.00134	.038	.00265	.0118	.085	.182
%RSD	.31231	.84314	.13662	.27754	.17624	.52485	.57954	.44673	.44673

#1	184.25	.50099	10.703	.48341	21.734	.50382	2.0490	19.147	40.974
#2	185.07	.49505	10.724	.48531	21.788	.50757	2.0323	19.026	40.716

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9234	1.6049	.98260	1.0411	1.8508	2.0865	.52555	.50469	.50819
Stddev	.0124	.0040	.00024	.0008	.0086	.0024	.00030	.00112	.00105
%RSD	.64473	.25222	.02483	.07238	.46715	.11640	.05645	.22266	.20733

#1	1.9322	1.6078	.98277	1.0417	1.8569	2.0882	.52576	.50548	.50744
#2	1.9147	1.6021	.98242	1.0406	1.8447	2.0848	.52534	.50390	.50893

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4718.0	58893.	7261.6
Stddev	8.8	159.	2.6
%RSD	.18569	.27071	.03649

#1	4724.2	59006.	7259.8
#2	4711.8	58781.	7263.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00570	1.0506	.21229	.38611	.19517	.04944	-.00141	41.764	.05147
Stddev	.00004	.0008	.00475	.00163	.00021	.00035	.00091	.105	.00037
%RSD	.62402	.07272	2.2381	.42206	.10544	.70635	64.717	.25180	.71586

#1	.00572	1.0501	.20893	.38727	.19503	.04969	-.00206	41.839	.05173
#2	.00567	1.0511	.21565	.38496	.19532	.04920	-.00077	41.690	.05121

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05000	.04888	.05311	1.0087	23.728	.14030	31.035	.05149	.05156
Stddev	.00012	.00023	.00032	.0088	.005	.00088	.021	.00013	.00015
%RSD	.24960	.47362	.59558	.87465	.01947	.62531	.06853	.25596	.29063

#1	.05009	.04905	.05289	1.0149	23.731	.13968	31.050	.05159	.05146
#2	.04992	.04872	.05334	1.0025	23.725	.14092	31.020	.05140	.05167

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	150.50	.05335	W 2.2297	.09220	19.215	.09566	.20931	14.378	30.768
Stddev	.01	.00030	.0210	.00020	.034	.00461	.00135	.105	.224
%RSD	.00837	.56128	.93961	.21545	.17723	4.8226	.64380	.72898	.72898

#1	150.50	.05314	2.2149	.09234	19.239	.09240	.20836	14.303	30.609
#2	150.51	.05356	2.2446	.09206	19.191	.09892	.21027	14.452	30.927

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09470	.63205	.19610	.05082	.19596	.49927	.05308	.22573	.04749
Stddev	.00005	.00014	.00039	.00038	.00313	.02315	.00039	.00001	.00064
%RSD	.05188	.02189	.19917	.75366	1.5961	4.6361	.72794	.00243	1.3535

#1	.09467	.63215	.19638	.05055	.19375	.48290	.05281	.22573	.04794
#2	.09474	.63195	.19582	.05110	.19817	.51564	.05336	.22572	.04703

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4792.3	60124.	7335.8
Stddev	3.9	113.	13.4
%RSD	.08095	.18861	.18212

#1	4789.5	60044.	7326.4
#2	4795.0	60205.	7345.3

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00114	49.506	.00122	.00342	.00022	.00011	.98160	.00740	.00000	-.00135	.00050
Stddev	.00014	.069	.00174	.00059	.00000	.00005	.00034	.00278	.00029	.00051	.00000
%RSD	12.351	.13883	142.02	17.180	.89023	41.583	.03501	37.577	16385.	37.661	.25242

#1	.00104	49.555	.00245	.00383	.00022	.00008	.98136	.00937	-.00020	-.00099	.00050
#2	.00124	49.457	-.00001	.00300	.00021	.00015	.98184	.00543	.00021	-.00171	.00050

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00504	47.954	.33665	.00573	.00433	-.00207	-.00033	242.38	.00219	.00558	.00056
Stddev	.00031	.665	.05547	.00175	.00683	.00002	.00021	.25	.00024	.00002	.00118
%RSD	6.2022	1.3876	16.478	30.515	157.62	.85629	63.918	.10396	11.092	.37652	211.01

#1	.00482	47.483	.29743	.00449	.00916	-.00206	-.00018	242.56	.00236	.00557	.00139
#2	.00526	48.424	.37588	.00696	-.00050	-.00209	-.00049	242.20	.00202	.00560	-.00027

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4.6523	-.00269	-.00302	-.01518	-.03250	-.00740	.00041	4.8909	-.00065	.00044	W 10.609
Stddev	.0160	.00078	.00311	.00698	.01494	.00041	.00008	.0015	.00042	.00029	.013
%RSD	.34349	28.965	103.08	45.963	45.963	5.5236	19.154	.03120	64.457	67.216	.12054

#1	4.6410	-.00214	-.00522	-.02012	-.04306	-.00769	.00035	4.8899	-.00094	.00064	10.600
#2	4.6636	-.00324	-.00082	-.01025	-.02193	-.00711	.00046	4.8920	-.00035	.00023	10.618

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value	5.0000										10.000
Range	-5.0000%										5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00273	.00114	.01117
Stddev	.00094	.00080	.00679
%RSD	34.356	70.318	60.796

#1	.00340	.00171	.00637
#2	.00207	.00057	.01598

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4760.2	59145.	6987.7
Stddev	4.0	211.	41.3
%RSD	.08340	.35734	.59126

#1	4757.4	58996.	6958.5
#2	4763.0	59295.	7016.9

Sample Name: CCV-3333645 Acquired: 6/16/2015 15:23:12 Type: QC

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52990	.54383	.97944	.50777	.49055	.48420	-.00031	4.8197	.49864	.50607	.48048	.50848	2.4602
Stddev	.00190	.00072	.00053	.00192	.00128	.00032	.00093	.0063	.00037	.00016	.00020	.00431	.0021
%RSD	.35913	.13309	.05400	.37867	.26044	.06607	298.48	.13168	.07346	.03201	.04162	.84790	.08660

#1	.53124	.54434	.97907	.50913	.49146	.48442	.00035	4.8153	.49890	.50595	.48062	.51153	2.4587
#2	.52855	.54332	.97982	.50641	.48965	.48397	-.00097	4.8242	.49838	.50618	.48034	.50543	2.4617

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.276	1.0015	20.858	.51340	.48822	5.2133	.51966	1.0322	1.0449	.01295	1.0094	.99545	4.8767
Stddev	.031	.0062	.022	.00061	.00057	.0266	.00044	.0019	.0014	.00022	.0044	.00573	.0395
%RSD	.06251	.62078	.10712	.11849	.11748	.51050	.08375	.17932	.13004	1.6731	.43538	.57525	.81004

#1	50.298	1.0059	20.842	.51297	.48782	5.2322	.51996	1.0335	1.0439	.01311	1.0063	.99141	4.8488
#2	50.254	.99710	20.873	.51383	.48863	5.1945	.51935	1.0309	1.0458	.01280	1.0125	.99950	4.9046

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass								
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.436	.97375	.49099	-.00225	.51122	.99396	-.01867	.52157	.50684	.49969
Stddev	.085	.00359	.00073	.00254	.00025	.01063	.01478	.00499	.00325	.00329
%RSD	.81004	.36901	.14823	113.13	.04874	1.0696	79.208	.95688	.64057	.65770

#1	10.376	.97121	.49150	-.00045	.51105	.98645	-.00821	.52510	.50455	.49737
#2	10.496	.97629	.49048	-.00405	.51140	1.0015	-.02912	.51805	.50914	.50201

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4873.0	60064.	6985.4
Stddev	3.1	530.	7.6
%RSD	.06450	.88189	.10887

#1	4870.8	60439.	6980.0
#2	4875.2	59690.	6990.8

Sample Name: CCB Acquired: 6/16/2015 15:25:38 Type: QC
 Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0026	.00034	.00277	.00046	-0.00038	.00003	.00601	-0.00644	-0.00028	.00029	-0.00024	-0.00065	-0.00467
Stddev	.00030	.00007	.00227	.00023	.00014	.00010	.00020	.00223	.00013	.00006	.00005	.00011	.00204
%RSD	116.31	21.119	81.943	49.842	37.571	295.60	3.2714	34.686	46.517	20.620	21.207	17.631	43.684

#1	-0.0047	.00029	.00116	.00030	-0.00028	-0.00004	.00587	-.00802	-.00019	.00034	-.00027	-.00073	-.00612
#2	-0.00005	.00039	.00437	.00062	-0.00048	.00010	.00615	-.00486	-.00037	.00025	-.00020	-.00057	-.00323

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.18509	.00362	.00088	-0.00002	-0.00025	.11345	.00052	.00088	.00082	.00328	-0.00153	.00242	-0.01853
Stddev	.00470	.00213	.00156	.00004	.00063	.00714	.00028	.00055	.00061	.00069	.00059	.00040	.00129
%RSD	2.5407	58.730	177.28	196.48	249.16	6.2898	53.126	62.514	74.527	21.046	38.341	16.535	6.9595

#1	.18176	.00513	-.00022	-.00005	.00019	.11849	.00032	.00049	.00125	.00376	-.00195	.00213	-.01944
#2	.18841	.00212	.00199	.00001	-.00070	.10840	.00072	.00127	.00039	.00279	-.00112	.00270	-.01762

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.03965	-0.00084	.00014	-0.00090	-0.00035	-0.00062	.01009	-0.00008	.00054	-0.00058
Stddev	.00276	.00001	.00009	.00023	.00046	.00180	.01146	.00070	.00014	.00388
%RSD	6.9595	.69260	64.597	25.482	129.07	290.86	113.59	850.64	25.675	670.85

#1	-.04160	-.00084	.00020	-.00106	-.00068	.00065	.01819	.00041	.00064	-.00332
#2	-.03770	-.00085	.00007	-.00074	-.00003	-.00189	.00199	-.00058	.00044	.00217

Check ?	Chk Pass									
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5003.7	62126.	7095.9
Stddev	9.3	27.	21.6
%RSD	.18518	.04288	.30438

#1	5010.2	62145.	7080.7
#2	4997.1	62107.	7111.2

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01133	.11689	.01620	.10506	.00949	.00103	.11516	.21289	.00500	.01102	.00993	.01539
Stddev	.00075	.00029	.00358	.00032	.00032	.00003	.00048	.00139	.00012	.00003	.00009	.00028
%RSD	6.6565	.24478	22.085	.30822	3.3417	2.4636	.41744	.65143	2.3683	.30722	.89053	1.8418

#1	.01186	.11668	.01367	.10483	.00972	.00105	.11550	.21191	.00508	.01104	.00986	.01519
#2	.01080	.11709	.01873	.10529	.00927	.00101	.11482	.21387	.00492	.01100	.00999	.01559

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10284	3.3640	F .01402	.23360	.01093	.01898	1.1969	.04436	3.1312	.00927	.00925	.00849
Stddev	.00328	.1173	.00148	.00563	.00009	.00030	.0177	.00047	.0072	.00022	.00332	.00023
%RSD	3.1899	3.4875	10.571	2.4094	.81039	1.5660	1.4819	1.0657	.22901	2.3849	35.929	2.7194

#1	.10516	3.2811	.01507	.22962	.01087	.01919	1.1843	.04470	3.1262	.00943	.00690	.00865
#2	.10052	3.4470	.01297	.23758	.01100	.01877	1.2094	.04403	3.1363	.00911	.01160	.00833

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass						
Value			.01000									
Range			30.000%									

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01598	.52068	1.1143	.09891	.01050	.01529	.01006	.01403	.04243	.01115	.02398	.01491
Stddev	.00144	.02852	.0610	.00003	.00018	.00108	.00011	.00259	.00116	.00087	.00029	.00138
%RSD	9.0046	5.4779	5.4779	.03152	1.7031	7.0464	1.0762	18.459	2.7351	7.8080	1.2287	9.2669

#1	.01700	.50051	1.0711	.09889	.01037	.01453	.01014	.01220	.04161	.01054	.02419	.01589
#2	.01496	.54085	1.1574	.09893	.01062	.01605	.00999	.01586	.04326	.01177	.02377	.01393

Check ?	Chk Pass											
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5039.1	62202.	7139.0
Stddev	14.3	169.	15.3
%RSD	.28332	.27103	.21435

#1	5049.2	62321.	7128.2
#2	5029.1	62082.	7149.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00008	.00547	.00321	.00066	.00012	.00000	.00188	.01920	-.00029
Stddev	.00003	.00043	.00248	.00055	.00036	.00006	.00212	.00119	.00021
%RSD	34.212	7.7874	77.278	83.804	314.88	2735.3	113.04	6.2060	74.568

#1	.00010	.00577	.00496	.00105	-.00014	.00005	.00338	.02005	-.00044
#2	.00006	.00517	.00145	.00027	.00037	-.00004	.00038	.01836	-.00014

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00010	.00022	-.00042	.01009	.16016	.00376	.00068	.00032	-.00046
Stddev	.00027	.00001	.00038	.00111	.06641	.00129	.00257	.00008	.00000
%RSD	271.17	2.5448	91.494	11.017	41.461	34.287	378.72	25.815	.94094

#1	-.00009	.00022	-.00015	.01087	.20712	.00467	-.00114	.00038	-.00046
#2	.00029	.00021	-.00069	.00930	.11321	.00285	.00250	.00026	-.00046

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08865	.00055	.00137	-.00017	.01168	-.00070	.00109	.01911	.04089
Stddev	.00277	.00006	.00100	.00094	.00322	.00157	.00043	.01047	.02241
%RSD	3.1239	11.273	72.655	560.70	27.547	223.44	38.997	54.812	54.812

#1	.09061	.00050	.00067	-.00083	.00940	.00041	.00139	.02651	.05673
#2	.08669	.00059	.00208	.00050	.01395	-.00181	.00079	.01170	.02504

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00109	.00009	.00005	-.00048	-.00129	-.00118	.00007	.00160	-.00063
Stddev	.00006	.00004	.00167	.00059	.00175	.04394	.00052	.00022	.00212
%RSD	5.9654	50.075	3099.7	123.79	135.62	3725.1	763.62	13.598	334.75

#1	-.00104	.00006	.00123	-.00006	-.00005	.02989	-.00030	.00144	-.00213
#2	-.00114	.00012	-.00112	-.00090	-.00253	-.03225	.00044	.00175	.00087

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	5026.2	62136.	7143.4
Stddev	18.1	419.	31.1
%RSD	.35963	.67377	.43512

#1	5013.4	61840.	7121.4
#2	5038.9	62432.	7165.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05679	2.1000	1.0036	1.0655	1.9992	.04936	2.0337	48.575	.10140
Stddev	.00146	.0128	.0013	.0009	.0091	.00012	.0073	.113	.00008
%RSD	2.5712	.61118	.12910	.08085	.45418	.25115	.35754	.23252	.07519

#1	.05575	2.0909	1.0045	1.0661	2.0056	.04945	2.0388	48.655	.10134
#2	.05782	2.1091	1.0027	1.0649	1.9928	.04928	2.0285	48.495	.10145

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50902	F .19747	.26289	.99186	51.809	1.0275	53.239	.52280	1.0162
Stddev	.00081	.00072	.00165	.00078	.042	.0054	.065	.00083	.0001
%RSD	.15884	.36504	.62929	.07900	.08167	.52365	.12134	.15882	.00550

#1	.50959	.19696	.26172	.99131	51.839	1.0313	53.193	.52221	1.0162
#2	.50845	.19798	.26406	.99241	51.779	1.0237	53.284	.52338	1.0161

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	51.808	.51191	10.636	.50940	1.9173	.51211	2.0240	9.9943	21.388
Stddev	.169	.00421	.035	.00039	.0032	.00158	.0050	.0616	.132
%RSD	.32713	.82199	.33030	.07581	.16566	.30908	.24774	.61630	.61630

#1	51.928	.51488	10.661	.50967	1.9150	.51323	2.0275	10.038	21.481
#2	51.688	.50893	10.611	.50913	1.9195	.51099	2.0204	9.9508	21.295

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9584	1.0044	1.0002	1.0629	1.9326	2.1295	.53677	.50690	.51902
Stddev	.0037	.0041	.0023	.0014	.0012	.0303	.00017	.00111	.00515
%RSD	.18975	.40435	.23281	.12962	.06114	1.4241	.03101	.21840	.99204

#1	1.9558	1.0073	.99857	1.0619	1.9317	2.1080	.53665	.50612	.52266
#2	1.9611	1.0016	1.0019	1.0639	1.9334	2.1509	.53689	.50768	.51538

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4768.8	59170.	7085.8
Stddev	32.3	4.	5.3
%RSD	.67814	.00724	.07544

#1	4791.6	59167.	7082.0
#2	4745.9	59173.	7089.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0009	.04028	.01032	.09548	.20699	-0.0011	-0.00496	379.01	-0.0019
Stddev	.00021	.00060	.00000	.00005	.00022	.00003	.00163	2.48	.00012
%RSD	233.07	1.4890	.02525	.04832	.10827	24.193	32.872	.65329	64.210

#1	-0.0023	.03985	.01032	.09544	.20683	-0.0009	-0.00612	377.26	-0.0011
#2	.00006	.04070	.01032	.09551	.20715	-0.0013	-0.00381	380.77	-0.0028

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00161	-0.00100	.00435	.04676	27.382	.31982	107.48	.00431	-0.00566
Stddev	.00016	.00004	.00033	.00010	.238	.00303	.19	.00000	.00008
%RSD	9.9884	3.6764	7.6183	.20986	.86800	.94867	.18016	.03610	1.4680

#1	.00149	-0.00097	.00411	.04669	27.214	.31768	107.35	.00431	-0.00560
#2	.00172	-0.00102	.00458	.04683	27.550	.32197	107.62	.00431	-0.00572

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	437.03	.00817	.01119	F -.01614	50.919	.00153	.04177	6.5944	14.112
Stddev	.24	.00057	.00280	.00031	.031	.00072	.00151	.1145	.245
%RSD	.05472	7.0213	25.026	1.9259	.06000	47.034	3.6070	1.7359	1.7359

#1	436.86	.00857	.00921	-.01592	50.941	.00204	.04284	6.5135	13.939
#2	437.20	.00776	.01317	-.01636	50.898	.00102	.04071	6.6754	14.285

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass				
High Limit				200.00					
Low Limit				-.00600					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0166	3.4569	-0.00268	-0.00007	.01281	.11014	-0.00082	.00677	-0.0175
Stddev	.00177	.0107	.00265	.00058	.00071	.03591	.00014	.00011	.00063
%RSD	107.07	.30874	99.071	860.74	5.5778	32.606	16.724	1.5563	36.076

#1	-0.00291	3.4494	-0.00080	.00034	.01230	.08474	-0.00072	.00684	-0.00220
#2	-0.00040	3.4645	-0.00455	-0.00048	.01331	.13553	-0.00092	.00670	-0.0130

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4392.1	54374.	6898.4
Stddev	1.0	273.	34.5
%RSD	.02233	.50251	.50064

#1	4392.8	54568.	6922.8
#2	4391.4	54181.	6874.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00039	.00779	.00990	.02001	.04159	.00003	-0.00056	77.344	-0.00035
Stddev	.00087	.00024	.00493	.00004	.00010	.00008	.00202	.194	.00009
%RSD	224.93	3.0365	49.764	.19862	.23566	292.68	363.25	.25088	25.706

#1	.00100	.00762	.00642	.01998	.04165	.00008	.00087	77.481	-0.0029
#2	-.00023	.00796	.01338	.02004	.04152	-.00003	-.00198	77.206	-0.0041

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00006	-0.00061	.00039	.01058	5.5647	.06582	22.018	.00087	-0.00470
Stddev	.00002	.00009	.00000	.00128	.0585	.00055	.034	.00001	.00043
%RSD	36.616	15.154	.35095	12.129	1.0514	.84072	.15553	.61751	9.1753

#1	.00004	-.00055	.00039	.01148	5.6060	.06543	21.994	.00087	-0.00501
#2	.00008	-.00068	.00039	.00967	5.5233	.06621	22.042	.00086	-0.00440

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	87.909	.00200	.00376	F -.00967	10.194	-0.00641	.01643	1.2715	2.7210
Stddev	1.146	.00012	.00039	.00140	.134	.00173	.00058	.0112	.0239
%RSD	1.3033	5.7518	10.412	14.476	1.3141	26.935	3.5145	.87845	.87845

#1	88.719	.00208	.00348	-.00868	10.288	-.00519	.01684	1.2794	2.7379
#2	87.098	.00192	.00404	-.01066	10.099	-.00763	.01602	1.2636	2.7041

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass				
High Limit				200.00					
Low Limit				-.00600					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00070	.68565	-0.00156	-0.00085	.01115	.01223	.00017	.00306	-0.00258
Stddev	.00055	.00116	.00070	.00003	.00053	.03369	.00025	.00021	.00172
%RSD	78.582	.16879	44.911	3.7357	4.7375	275.47	149.56	6.8037	66.730

#1	-0.00031	.68647	-.00106	-.00083	.01152	.03605	.00034	.00292	-0.00380
#2	-0.00108	.68483	-.00205	-.00087	.01077	-.01159	-.00001	.00321	-0.00136

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4806.3	59040.	7106.0
Stddev	8.2	208.	25.3
%RSD	.17058	.35154	.35619

#1	4812.1	59186.	7123.9
#2	4800.5	58893.	7088.1

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05786	2.0395	W 2.5613	1.0130	1.1111	2.1672	.04760	F 1.9208	433.77
Stddev	.00056	.0024	.0291	.0015	.0010	.0008	.00011	.0016	3.35
%RSD	.97200	.12032	1.1381	.14879	.09099	.03519	.22361	.08227	.77250

#1	.05825	2.0377	2.5819	1.0141	1.1118	2.1666	.04753	1.9219	436.14
#2	.05746	2.0412	2.5407	1.0119	1.1104	2.1677	.04768	1.9197	431.40

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit			500.00					.10000	
Low Limit			3.2000					-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10073	.48440	W .18952	.26045	.99903	81.800	1.3565	162.51	.50960
Stddev	.00004	.00021	.00016	.00115	.00317	.063	.0002	.09	.00003
%RSD	.04034	.04360	.08322	.43970	.31748	.07702	.01164	.05339	.00502

#1	.10070	.48455	.18963	.26126	.99679	81.845	1.3566	162.45	.50961
#2	.10076	.48425	.18941	.25964	1.0013	81.756	1.3564	162.57	.50958

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			.10000						
Low Limit			-.01000						

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.98621	W 504.26	.48910	W 10.955	.45319	55.320	.50678	2.0427	16.763
Stddev	.00023	.19	.00059	.000	.00014	.042	.00085	.0116	.022
%RSD	.02344	.03705	.12158	.00348	.03150	.07623	.16746	.56609	.12862

#1	.98604	504.13	.48952	10.955	.45309	55.291	.50739	2.0345	16.778
#2	.98637	504.39	.48868	10.955	.45330	55.350	.50618	2.0509	16.748

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass				
High Limit		500.00		2.0000					
Low Limit		11.000		-1.0000					

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	35.873	1.8383	4.5492	.98543	1.0468	1.6636	2.1596	.53124	.48967
Stddev	.046	.0091	.0013	.00053	.0003	.0147	.0194	.00071	.00188
%RSD	.12862	.49320	.02784	.05380	.03000	.88620	.89695	.13323	.38492

#1	35.906	1.8319	4.5483	.98506	1.0470	1.6532	2.1733	.53074	.48834
#2	35.841	1.8447	4.5501	.98581	1.0466	1.6740	2.1459	.53174	.49100

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.50638
Stddev	.00186
%RSD	.36745

#1	.50507
#2	.50770

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-70543-a-1-h ms Acquired: 6/16/2015 15:40:48 Type: Unk

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: Custom ID2: Custom ID3:

Comment: 281645 6010B

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	4331.8	53755.	6940.8
Stddev	1.5	96.	10.7
%RSD	.03444	.17896	.15462
#1	4330.7	53823.	6948.4
#2	4332.8	53687.	6933.2

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05614	2.0040	W 2.5163	.99009	1.0866	2.1337	.04669	F 1.8868	426.73
Stddev	.00059	.0015	.0035	.00346	.0011	.0007	.00021	.0065	2.95
%RSD	1.0429	.07646	.13805	.34982	.10518	.03411	.45893	.34215	.69056

#1	.05655	2.0029	2.5138	.99254	1.0874	2.1342	.04654	1.8914	428.81
#2	.05572	2.0051	2.5187	.98764	1.0858	2.1332	.04685	1.8822	424.64

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit			500.00					.10000	
Low Limit			3.2000					-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09866	.47380	W .18556	.25323	.97942	80.145	1.3377	156.91	.49428
Stddev	.00031	.00048	.00051	.00009	.00547	.040	.0015	.07	.00065
%RSD	.31584	.10171	.27651	.03531	.55877	.05008	.11072	.04675	.13118

#1	.09888	.47414	.18592	.25317	.98329	80.117	1.3366	156.96	.49382
#2	.09844	.47346	.18520	.25329	.97555	80.174	1.3387	156.85	.49474

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			.10000						
Low Limit			-.01000						

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.96470	491.57	.47749	W 10.709	.44688	53.827	.49140	2.0022	16.362
Stddev	.00046	.31	.00051	.024	.00328	.123	.00591	.0113	.105
%RSD	.04761	.06213	.10776	.21940	.73320	.22826	1.2018	.56298	.64261

#1	.96502	491.79	.47712	10.725	.44457	53.914	.49558	2.0102	16.288
#2	.96437	491.35	.47785	10.692	.44920	53.740	.48723	1.9942	16.437

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				2.0000					
Low Limit				-1.0000					

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	35.015	1.7947	4.4613	.95844	1.0175	1.6403	2.0625	.51500	.47786
Stddev	.225	.0129	.0037	.00096	.0006	.0131	.0191	.00085	.00264
%RSD	.64261	.71640	.08193	.10041	.05986	.80015	.92757	.16518	.55217

#1	34.856	1.8038	4.4639	.95776	1.0179	1.6496	2.0490	.51560	.47972
#2	35.174	1.7856	4.4587	.95912	1.0171	1.6311	2.0760	.51440	.47599

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.49068
Stddev	.00102
%RSD	.20703

#1	.49140
#2	.48996

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-70543-a-1-i msd Acquired: 6/16/2015 15:43:27 Type: Unk
Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
User: S. Scott Prep Date: Custom ID2: Custom ID3:
Comment: 281645 6010B

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	4329.5	53767.	6795.6
Stddev	6.5	43.	4.3
%RSD	.15003	.08088	.06360
#1	4324.9	53797.	6798.7
#2	4334.1	53736.	6792.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00016	.14448	2.0094	4.8022	.08767	.00061	-0.00394	18.401	W -.00866
Stddev	.00066	.00064	.0052	.0158	.00016	.00002	.00016	.003	.00028
%RSD	427.29	.44626	.25727	.32883	.18246	3.3814	4.0381	.01595	3.2537

#1	.00062	.14494	2.0131	4.8134	.08756	.00062	-0.00406	18.399	-.00886
#2	-.00031	.14403	2.0058	4.7910	.08779	.00059	-0.00383	18.403	-.00846

Check ?	Chk Pass	Chk Warn							
High Limit									2.0000
Low Limit									-.00500

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03508	W .10027	.12083	3.1355	F 806.83	1.2102	33.970	.25038	1.6914
Stddev	.00015	.00099	.00011	.0160	4.56	.0009	.252	.00137	.0025
%RSD	.42055	.98816	.09356	.51149	.56543	.07782	.74259	.54895	.14815

#1	.03497	.09957	.12091	3.1468	810.06	1.2095	34.148	.25135	1.6932
#2	.03518	.10097	.12075	3.1241	803.61	1.2108	33.791	.24941	1.6896

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.10000			500.00				
Low Limit		-.01000			-2.0000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 8004.6	.94728	W 8.0754	W -.00573	F 1099.5	.06353	.06990	39.146	83.772
Stddev	31.4	.00320	.1007	.00083	2.6	.00280	.00196	.198	.424
%RSD	.39217	.33740	1.2467	14.501	.23750	4.4101	2.8075	.50559	.50559

#1	8026.8	.94954	8.0042	-.00631	1101.3	.06154	.06851	39.286	84.071
#2	7982.4	.94502	8.1466	-.00514	1097.6	.06551	.07128	39.006	83.472

Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Warn	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00		2.0000	10.000	200.00				
Low Limit	11.000		-1.0000	-.00300	-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01063	.69109	-.00346	.00912	.00174	.02165	.51350	.05931	.00900
Stddev	.00004	.00053	.00275	.00056	.00304	.00624	.00051	.00030	.00192
%RSD	.34398	.07691	79.417	6.0929	174.77	28.807	.09846	.50014	21.281

#1	.01066	.69147	-.00152	.00952	-.00041	.01724	.51386	.05910	.01036
#2	.01060	.69072	-.00540	.00873	.00389	.02606	.51314	.05952	.00765

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3712.0	44075.	6759.4
Stddev	9.7	310.	22.3
%RSD	.26211	.70337	.33062

#1	3705.1	43856.	6743.6
#2	3718.9	44294.	6775.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00005	.02916	.37724	1.0395	.01661	.00019	.00542	3.7092	-0.00193
Stddev	.00008	.00010	.00282	.0009	.00012	.00000	.00050	.0808	.00026
%RSD	168.83	.34121	.74796	.08946	.73111	1.8621	9.2854	2.1778	13.705

#1	.00001	.02923	.37923	1.0389	.01669	.00018	.00506	3.7663	-.00211
#2	-.00010	.02909	.37524	1.0402	.01652	.00019	.00577	3.6520	-.00174

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00620	.01977	.02487	.61952	W 170.22	.23572	7.0686	.04867	.34098
Stddev	.00002	.00022	.00058	.00169	.73	.00050	.0087	.00003	.00158
%RSD	.26998	1.1236	2.3495	.27281	.43106	.21076	.12319	.07136	.46302

#1	.00618	.01961	.02528	.62071	170.74	.23537	7.0748	.04869	.34209
#2	.00621	.01992	.02445	.61832	169.71	.23607	7.0625	.04864	.33986

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					100.00				
Low Limit					-50000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1538.3	.19880	1.5462	-.00218	F 234.97	.00944	.00874	7.7626	16.612
Stddev	1.7	.00063	.0056	.00089	.45	.00214	.00329	.0267	.057
%RSD	.11065	.31551	.36226	40.717	.19318	22.625	37.651	.34421	.34421

#1	1539.5	.19924	1.5501	-.00281	234.65	.01095	.01107	7.7815	16.652
#2	1537.1	.19835	1.5422	-.00156	235.30	.00793	.00641	7.7437	16.572

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00				200.00				
Low Limit	11.000				-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00161	.13294	-.00343	.00162	.00097	.01167	.09764	.01308	.00062
Stddev	.00084	.00019	.00193	.00031	.00177	.01128	.00005	.00107	.00115
%RSD	52.070	.14589	56.208	19.148	181.88	96.634	.05063	8.2117	185.17

#1	.00102	.13281	-.00207	.00140	-.00028	.00370	.09768	.01384	.00144
#2	.00220	.13308	-.00480	.00184	.00222	.01964	.09761	.01232	-.00019

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4517.9	54833.	7293.0
Stddev	13.5	144.	158.4
%RSD	.29868	.26268	2.1716

#1	4508.4	54731.	7181.0
#2	4527.5	54935.	7405.0

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00060	48.803	.00286	.00508	.00007	.00018	.98507	.01375	.00005	-.00145	.00046
Stddev	.00022	.313	.00239	.00033	.00009	.00003	.00253	.00283	.00015	.00004	.00008
%RSD	36.353	.64035	83.380	6.4319	134.19	16.331	.25725	20.563	303.44	2.9901	16.647

#1	.00044	48.582	.00455	.00485	.00000	.00020	.98328	.01574	.00015	-.00142	.00041
#2	.00075	49.024	.00117	.00531	.00013	.00016	.98686	.01175	-.00006	-.00148	.00052

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00443	46.948	.95115	.00809	.00295	-.00005	-.00057	240.37	.00245	.00629	.00215
Stddev	.00093	.424	.02356	.00033	.00134	.00004	.00002	.83	.00042	.00090	.00031
%RSD	20.936	.90402	2.4773	4.0623	45.495	80.966	4.0946	.34681	16.994	14.276	14.558

#1	.00509	47.248	.96782	.00832	.00200	-.00007	-.00055	239.78	.00215	.00565	.00193
#2	.00378	46.648	.93449	.00785	.00390	-.00002	-.00058	240.96	.00274	.00692	.00237

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4.6926	-.00276	-.00247	-.02835	-.06067	-.00651	.00038	4.8984	.00015	.00146	W 10.672
Stddev	.0145	.00127	.00083	.00157	.00337	.00032	.00002	.0193	.00014	.00039	.046
%RSD	.30811	46.089	33.493	5.5508	5.5508	4.9815	4.2435	.39304	90.611	27.044	.43211

#1	4.6823	-.00186	-.00189	-.02946	-.06305	-.00674	.00039	4.8847	.00005	.00174	10.639
#2	4.7028	-.00365	-.00306	-.02724	-.05829	-.00628	.00037	4.9120	.00025	.00118	10.704

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value	5.0000										10.000
Range	-5.0000%										5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00234	.00228	.00948
Stddev	.00006	.00018	.00598
%RSD	2.4895	8.0901	63.095

#1	.00238	.00215	.01371
#2	.00229	.00241	.00525

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4862.3	59796.	7315.0
Stddev	4.2	307.	43.2
%RSD	.08676	.51346	.58991

#1	4865.3	60013.	7345.5
#2	4859.4	59578.	7284.5

Sample Name: CCV-3333645 Acquired: 6/16/2015 15:56:04 Type: QC

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52857	.53923	.97418	.50775	.48652	.47677	.00100	4.7273	.49544	.51442	.47412	.50658
Stddev	.00055	.00012	.00318	.00130	.00304	.00188	.00023	.0021	.00017	.00004	.00139	.00201
%RSD	.10437	.02227	.32670	.25574	.62582	.39337	22.470	.04490	.03466	.00869	.29297	.39771

#1	.52896	.53914	.97193	.50867	.48867	.47810	.00085	4.7288	.49556	.51439	.47511	.50516
#2	.52818	.53931	.97643	.50683	.48437	.47545	.00116	4.7258	.49532	.51445	.47314	.50801

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.4098	50.378	.99884	20.646	.50941	.48289	F 5.7896	.51677	1.0306	1.0369	.06373	.99782
Stddev	.0155	.085	.00940	.039	.00023	.00078	.0200	.00054	.0003	.0006	.00276	.00596
%RSD	.64335	.16859	.94060	.19087	.04600	.16224	.34488	.10511	.02933	.05371	4.3308	.59715

#1	2.4207	50.438	1.0055	20.674	.50957	.48344	5.8037	.51716	1.0308	1.0373	.06568	1.0020
#2	2.3988	50.318	.99219	20.618	.50924	.48234	5.7755	.51639	1.0304	1.0365	.06177	.99360

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass					
Value							5.0000					
Range							10.490%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.98574	4.7916	10.254	.95540	.48710	-.00348	.50796	.97705	.00427	.51592	.49848	.49855
Stddev	.00389	.0559	.120	.00343	.00169	.00038	.00029	.00025	.01382	.00002	.00092	.00072
%RSD	.39497	1.1660	1.1660	.35952	.34641	10.906	.05691	.02579	323.30	.00350	.18377	.14450

#1	.98849	4.7521	10.169	.95783	.48829	-.00321	.50776	.97688	-.00550	.51591	.49912	.49804
#2	.98298	4.8311	10.338	.95297	.48590	-.00375	.50817	.97723	.01404	.51593	.49783	.49906

Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass				
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4929.5	61016.	7140.7
Stddev	12.5	129.	10.1
%RSD	.25442	.21119	.14159

#1	4938.3	60925.	7147.9
#2	4920.6	61107.	7133.6

Sample Name: CCB Acquired: 6/16/2015 15:58:30 Type: QC
 Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00042	-.00013	W .00557	.00148	-.00053	.00000	.00237	-.00633	-.00040	.00028	-.00012
Stddev	.00089	.00015	.00233	.00025	.00014	.00001	.00108	.00348	.00011	.00015	.00021
%RSD	210.59	115.65	41.736	16.781	27.124	18244.	45.500	54.898	27.389	53.612	175.70

#1	-.00021	-.00023	.00722	.00130	-.00043	.00000	.00161	-.00387	-.00047	.00017	-.00026
#2	.00105	-.00002	.00393	.00165	-.00063	.00000	.00314	-.00879	-.00032	.00038	.00003

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass							
High Limit			.00500								
Low Limit			-.00500								

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00060	-.00327	.44783	.00207	.00200	-.00004	-.00038	F .59895	.00060	.00143	.00063
Stddev	.00013	.00016	.01500	.00031	.00325	.00006	.00023	.00571	.00021	.00166	.00091
%RSD	21.311	4.9619	3.3489	14.814	162.37	134.79	59.296	.95397	34.813	115.56	142.93

#1	-.00051	-.00339	.45843	.00228	.00430	-.00009	-.00022	.59491	.00045	.00260	.00128
#2	-.00068	-.00316	.43722	.00185	-.00030	.00000	-.00054	.60299	.00074	.00026	-.00001

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass						
High Limit								.50000			
Low Limit								-.50000			

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04041	-.00295	.00056	-.01955	-.04183	-.00087	.00013	-.00129	-.00025	-.00028	.00555
Stddev	.00143	.00163	.00157	.01006	.02153	.00016	.00006	.00217	.00023	.00108	.02849
%RSD	3.5477	55.331	280.56	51.469	51.469	18.751	44.517	168.45	92.343	384.84	513.54

#1	.03939	-.00410	-.00055	-.02666	-.05706	-.00099	.00017	-.00282	-.00041	.00049	.02570
#2	.04142	-.00180	.00167	-.01243	-.02661	-.00076	.00009	.00025	-.00009	-.00105	-.01460

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00013	.00007	-.00086
Stddev	.00059	.00002	.00095
%RSD	466.61	22.160	110.77

#1	.00054	.00009	-.00019
#2	-.00029	.00006	-.00153

Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5041.8	62614.	7218.4
Stddev	7.8	307.	11.1
%RSD	.15539	.49023	.15323

#1	5047.3	62397.	7210.6
#2	5036.2	62831.	7226.3

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01135	.11603	.01914	.10397	.00981	.00092	.11342	.20967	.00495	.01092	.00980	.01462
Stddev	.00063	.00016	.00140	.00059	.00007	.00004	.00161	.00016	.00015	.00014	.00004	.00013
%RSD	5.5065	.13509	7.3109	.56594	.71646	4.1890	1.4195	.07491	3.0577	1.2847	.45210	.87172

#1	.01091	.11592	.02013	.10356	.00976	.00090	.11456	.20979	.00484	.01082	.00983	.01471
#2	.01179	.11614	.01815	.10439	.00986	.00095	.11228	.20956	.00505	.01102	.00977	.01453

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10189	3.5724	F .01711	.22833	.01084	.01885	F 1.5750	.04356	3.0698	.00973	.03327	.00877
Stddev	.00188	.0986	.00282	.00256	.00007	.00040	.0201	.00037	.0222	.00074	.00016	.00110
%RSD	1.8418	2.7612	16.457	1.1213	.64769	2.0998	1.2788	.85098	.72245	7.6416	.49532	12.551

#1	.10322	3.6422	.01512	.23014	.01089	.01857	1.5893	.04330	3.0541	.00920	.03315	.00799
#2	.10056	3.5027	.01910	.22652	.01079	.01913	1.5608	.04382	3.0855	.01026	.03338	.00955

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value			.01000				1.0000					
Range			30.000%				30.000%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01336	4.9693	1.0634	.09759	.01032	.01555	.01018	.01567	.06392	.01061	.02382	.01315
Stddev	.00405	.00668	.0143	.00044	.00002	.00037	.00018	.00026	.03568	.00035	.00027	.00012
%RSD	30.318	1.3440	1.3440	.44601	.17454	2.4056	1.7634	1.6447	55.824	3.3049	1.1502	.90266

#1	.01623	.49220	1.0533	.09728	.01033	.01581	.01031	.01549	.08915	.01036	.02402	.01324
#2	.01050	.50165	1.0735	.09790	.01031	.01528	.01006	.01585	.03869	.01086	.02363	.01307

Check ?	Chk Pass											
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5041.8	62085.	7193.8
Stddev	8.0	223.	37.8
%RSD	.15784	.35901	.52480

#1	5036.2	62243.	7220.5
#2	5047.5	61927.	7167.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00042	2.0729	.00914	.02668	.06115	.00014	-.00108	35.204	.00003
Stddev	.00046	.0009	.00012	.00010	.00009	.00002	.00144	.017	.00007
%RSD	108.45	.04448	1.2894	.37284	.14557	16.453	133.66	.04891	245.56

#1	.00075	2.0736	.00906	.02661	.06109	.00012	-.00006	35.216	-.00002
#2	.00010	2.0723	.00922	.02675	.06122	.00015	-.00210	35.192	.00007

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00055	.00222	.00364	2.0071	2.7382	.01503	9.0656	.04118	-.00169
Stddev	.00021	.00014	.00039	.0024	.0181	.00030	.0314	.00010	.00031
%RSD	37.325	6.4772	10.716	.12196	.65945	1.9763	.34629	.23487	18.521

#1	.00041	.00212	.00392	2.0054	2.7254	.01524	9.0434	.04111	-.00192
#2	.00070	.00232	.00337	2.0088	2.7510	.01482	9.0878	.04124	-.00147

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.3720	.00399	.11455	W -.00458	17.529	-.00212	.00883	8.1010	17.336
Stddev	.0174	.00031	.00095	.00007	.020	.00248	.00423	.0283	.061
%RSD	.18609	7.7161	.82836	1.4791	.11346	116.78	47.888	.34929	.34929

#1	9.3597	.00377	.11387	-.00453	17.515	-.00387	.00584	8.1211	17.379
#2	9.3843	.00420	.11522	-.00463	17.543	-.00037	.01182	8.0810	17.293

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.00300					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00189	.29128	.00026	.04644	.00518	-.01926	.00795	.01117	-.00193
Stddev	.00025	.00013	.00216	.00175	.00047	.02871	.00017	.00025	.00273
%RSD	13.454	.04343	822.88	3.7607	9.1596	149.05	2.1168	2.2770	141.31

#1	.00171	.29119	-.00127	.04767	.00485	.00104	.00807	.01135	.00000
#2	.00207	.29137	.00179	.04520	.00552	-.03957	.00784	.01099	-.00386

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4967.7	61931.	7166.3
Stddev	8.3	142.	45.1
%RSD	.16673	.22941	.62977

#1	4961.8	62032.	7198.2
#2	4973.5	61831.	7134.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0006	1.9834	.00826	.02449	.05962	.00004	-0.00277	34.585	.00001
Stddev	.00045	.0049	.00040	.00059	.00019	.00007	.00049	.174	.00000
%RSD	699.24	.24833	4.8081	2.4188	.32468	166.22	17.791	.50297	6.0905

#1	-0.00038	1.9869	.00798	.02407	.05976	.00009	-0.00312	34.462	.00001
#2	.00025	1.9799	.00855	.02491	.05949	-0.00001	-0.00242	34.708	.00001

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00066	.00180	.00374	1.9214	2.6039	.01447	8.9197	.03965	-0.0168
Stddev	.00016	.00016	.00017	.0029	.0203	.00019	.0259	.00009	.00012
%RSD	24.331	8.9561	4.4632	.14989	.77772	1.3222	.29087	.23563	6.9574

#1	.00078	.00192	.00385	1.9194	2.5896	.01434	8.9380	.03959	-0.0176
#2	.00055	.00169	.00362	1.9234	2.6182	.01461	8.9013	.03972	-0.0159

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.7658	.00368	.11469	-0.00186	17.443	-0.00217	.01072	7.9246	16.959
Stddev	.0245	.00009	.00051	.00041	.057	.00078	.00034	.0631	.135
%RSD	.28000	2.5083	.44845	22.044	.32797	35.945	3.1374	.79629	.79629

#1	8.7484	.00375	.11432	-0.00157	17.483	-0.00272	.01095	7.8800	16.863
#2	8.7831	.00362	.11505	-0.00215	17.403	-0.00162	.01048	7.9692	17.054

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00059	.28340	.00023	.04232	.00536	-0.01238	.00829	.01229	.00180
Stddev	.00039	.00079	.00091	.00044	.00039	.03205	.00005	.00038	.00037
%RSD	66.335	.27786	394.92	1.0443	7.2218	258.82	.64719	3.1311	20.460

#1	-0.00032	.28284	-0.00041	.04263	.00563	.01028	.00825	.01202	.00154
#2	-0.00087	.28395	.00088	.04201	.00508	-0.03504	.00833	.01257	.00206

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4983.5	61557.	7196.1
Stddev	8.0	136.	78.1
%RSD	.16151	.22144	1.0857

#1	4977.8	61654.	7251.3
#2	4989.2	61461.	7140.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00059	1.9364	.00942	.02631	.06195	.00015	-.00165	36.107	.00012
Stddev	.00037	.0015	.00181	.00064	.00025	.00007	.00139	.081	.00011
%RSD	63.845	.07679	19.208	2.4228	.41152	45.995	84.637	.22346	87.216

#1	.00085	1.9354	.01070	.02676	.06213	.00010	-.00263	36.164	.00020
#2	.00032	1.9375	.00814	.02586	.06177	.00020	-.00066	36.050	.00005

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00082	.00161	.00419	2.7555	2.6102	.01210	9.5311	.05419	-.00144
Stddev	.00003	.00017	.00020	.0006	.0003	.00102	.0015	.00008	.00013
%RSD	3.0523	10.246	4.8516	.02256	.01108	8.4535	.01571	.15040	9.0752

#1	.00081	.00150	.00434	2.7559	2.6104	.01283	9.5321	.05425	-.00153
#2	.00084	.00173	.00405	2.7550	2.6100	.01138	9.5300	.05413	-.00134

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.5865	.00368	.20564	-.00294	18.416	-.00419	.00775	7.6011	16.266
Stddev	.0210	.00000	.00248	.00034	.066	.00127	.00154	.0453	.097
%RSD	.21890	.10342	1.2076	11.709	.36024	30.378	19.945	.59651	.59651

#1	9.5717	.00368	.20740	-.00319	18.369	-.00509	.00884	7.5691	16.198
#2	9.6013	.00368	.20389	-.00270	18.463	-.00329	.00665	7.6332	16.335

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00037	.29670	-.00006	.11171	.00588	-.00452	.00950	.01397	-.00034
Stddev	.00092	.00039	.00188	.00021	.00086	.01198	.00023	.00018	.00132
%RSD	248.28	.13127	3187.7	.18786	14.670	265.25	2.4274	1.3211	386.46

#1	.00028	.29642	.00127	.11186	.00649	-.01299	.00933	.01384	-.00128
#2	-.00102	.29698	-.00139	.11157	.00527	.00396	.00966	.01410	.00059

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4991.7	61244.	7212.3
Stddev	7.4	120.	47.3
%RSD	.14843	.19512	.65517

#1	4986.5	61160.	7178.9
#2	4997.0	61329.	7245.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0010	.07119	.01172	.01484	.01509	-0.0003	-0.00194	28.546	.00020
Stddev	.00039	.00079	.00020	.00027	.00043	.00001	.00332	.008	.00007
%RSD	393.81	1.1048	1.6931	1.8169	2.8537	17.856	170.87	.02922	33.049

#1	.00018	.07174	.01158	.01465	.01478	-0.0003	.00040	28.540	.00015
#2	-0.00037	.07063	.01186	.01503	.01539	-0.0002	-.00429	28.552	.00024

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0064	-0.0010	-0.0007	.23299	5.4388	.00591	22.296	.22188	-0.0163
Stddev	.00000	.00002	.00002	.00210	.0626	.00161	.083	.00005	.00011
%RSD	.08971	15.551	22.386	.90284	1.1504	27.254	.37263	.02337	6.8159

#1	-0.0064	-0.0009	-0.0006	.23150	5.3945	.00704	22.237	.22192	-0.0170
#2	-0.0064	-0.0011	-0.0008	.23448	5.4830	.00477	22.355	.22184	-0.0155

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.979	.00021	.37971	W -.00486	1.0994	-0.00515	.00682	15.849	33.916
Stddev	.306	.00033	.00179	.00112	.0074	.00248	.00361	.077	.165
%RSD	2.1897	156.21	.47237	23.102	.67218	48.216	52.950	.48704	.48704

#1	13.763	.00045	.37844	-.00566	1.0942	-.00339	.00937	15.794	33.799
#2	14.196	-0.0002	.38098	-.00407	1.1046	-0.00690	.00426	15.903	34.033

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.00300					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00037	.17141	-0.0022	.00268	.00340	-0.00351	.00019	.00123	-0.0018
Stddev	.00103	.00036	.00068	.00003	.00017	.00434	.00025	.00014	.00051
%RSD	277.07	.21201	315.12	1.0574	5.1345	123.47	130.97	10.999	278.07

#1	.00110	.17115	-0.0069	.00270	.00353	-.00658	.00001	.00133	.00018
#2	-0.00036	.17166	.00026	.00266	.00328	-0.00045	.00036	.00114	-0.00054

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4939.5	61515.	7239.8
Stddev	2.2	392.	22.0
%RSD	.04537	.63753	.30399

#1	4941.1	61792.	7224.2
#2	4937.9	61238.	7255.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0004	.12244	.01261	.02828	.01219	.00004	-0.00346	23.221	.00024
Stddev	.00114	.00008	.00319	.00001	.00009	.00006	.00091	.032	.00011
%RSD	2790.7	.06146	25.269	.03891	.76530	159.39	26.201	.13829	47.912

#1	.00076	.12238	.01487	.02827	.01225	.00000	-.00410	23.243	.00032
#2	-.00084	.12249	.01036	.02829	.01212	.00008	-.00282	23.198	.00016

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0068	-0.0003	.00129	.18786	4.8739	.00447	15.134	.17953	-0.0143
Stddev	.00026	.00009	.00002	.00157	.0706	.00219	.028	.00041	.00003
%RSD	37.631	275.15	1.6601	.83337	1.4492	48.999	.18264	.22627	2.4298

#1	-0.00050	.00003	.00131	.18675	4.9239	.00601	15.115	.17924	-0.0146
#2	-0.00087	-0.00010	.00128	.18896	4.8240	.00292	15.154	.17982	-0.0141

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	589.592 {57}	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.379	W 10.797	-0.00007	.33678	W -.00455	2.2971	-0.00459	.00570	18.000
Stddev	.002	.023	.00017	.00178	.00019	.0162	.00073	.00170	.093
%RSD	.01478	.20974	236.06	.52951	4.0983	.70370	15.809	29.741	.51669

#1	10.380	10.781	-0.00019	.33552	-0.00468	2.2857	-0.00510	.00450	17.935
#2	10.378	10.813	.00005	.33804	-0.00442	2.3086	-0.00408	.00690	18.066

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		500.00			10.000				
Low Limit		11.000			-0.00300				

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	38.521	-0.00077	.13950	-0.00030	.00439	.00367	-0.00543	.00032	.00668
Stddev	.199	.00103	.00013	.00016	.00002	.00024	.00883	.00019	.00013
%RSD	.51669	133.30	.09426	52.704	.55897	6.4481	162.54	60.138	1.9843

#1	38.380	-0.00004	.13959	-0.00019	.00437	.00383	.00081	.00018	.00658
#2	38.662	-0.00149	.13940	-0.00042	.00440	.00350	-0.01167	.00045	.00677

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 {99}
Units	ppm
Avg	.00002
Stddev	.00009
%RSD	496.24

#1	-0.00005
#2	.00009

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-70473-d-2-a Acquired: 6/16/2015 16:13:52 Type: Unk
Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
User: S. Scott Prep Date: Custom ID2: Custom ID3:
Comment: 281645 6010B

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	4973.8	61956.	7271.1
Stddev	15.2	293.	3.0
%RSD	.30513	.47319	.04134
#1	4963.1	62163.	7269.0
#2	4984.5	61748.	7273.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0009	.00823	.00987	.02392	.01024	-0.0002	-0.00352	30.540	.00006
Stddev	.00079	.00039	.00333	.00013	.00004	.00003	.00148	.090	.00010
%RSD	854.16	4.6812	33.706	.54763	.40546	158.82	42.011	.29456	156.52

#1	-0.00065	.00796	.01222	.02401	.01021	-0.0004	-0.00456	30.476	-0.0001
#2	.00047	.00850	.00752	.02383	.01027	.00000	-0.00247	30.603	.00014

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0059	-0.0031	-0.0023	.05969	3.8176	.00519	15.042	.25367	-0.0182
Stddev	.00003	.00017	.00005	.00178	.0170	.00269	.029	.00005	.00013
%RSD	5.1594	52.777	20.077	2.9809	.44419	51.765	.19060	.02049	7.2827

#1	-0.00057	-0.00020	-0.00020	.05843	3.8296	.00709	15.022	.25363	-0.0191
#2	-0.00061	-0.00043	-0.00027	.06095	3.8056	.00329	15.062	.25371	-0.0172

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.364	.00032	.31043	W -.00472	9.4747	-0.00472	.00510	14.860	31.800
Stddev	.082	.00007	.00518	.00120	.0823	.00298	.00269	.035	.074
%RSD	.66130	20.520	1.6673	25.310	.86842	63.160	52.779	.23299	.23299

#1	12.306	.00036	.30677	-.00388	9.4165	-.00682	.00320	14.836	31.748
#2	12.422	.00027	.31409	-.00557	9.5328	-.00261	.00700	14.885	31.853

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.00300					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0102	.17661	.00013	-0.00069	.00428	-0.1167	.00055	.00186	-0.0188
Stddev	.00115	.00008	.00074	.00004	.00042	.00586	.00094	.00074	.00102
%RSD	112.39	.04304	570.49	5.7396	9.8887	50.246	173.00	39.555	54.027

#1	-0.0183	.17655	-0.00040	-.00071	.00458	-.01582	.00121	.00238	-0.0116
#2	-0.00021	.17666	.00066	-.00066	.00398	-.00752	-.00012	.00134	-.00260

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4934.9	61164.	7194.1
Stddev	16.8	78.	21.5
%RSD	.34136	.12728	.29901

#1	4946.8	61219.	7209.3
#2	4923.0	61109.	7178.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00058	.01489	.00322	.00666	.00425	-.00001	-.00287	9.3783	.00043
Stddev	.00035	.00003	.00092	.00032	.00007	.00013	.00061	.0081	.00010
%RSD	60.821	.19274	28.592	4.7830	1.6121	1401.6	21.176	.08622	22.431

#1	.00083	.01486	.00257	.00644	.00430	.00008	-.00244	9.3840	.00049
#2	.00033	.01491	.00387	.00689	.00420	-.00010	-.00330	9.3725	.00036

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00132	.00072	-.00025	.04682	2.1821	.00745	7.1676	.00226	-.00124
Stddev	.00031	.00007	.00015	.00122	.0382	.00129	.0259	.00006	.00020
%RSD	23.338	10.315	59.420	2.6087	1.7501	17.346	.36099	2.7001	15.922

#1	-.00154	.00067	-.00035	.04596	2.1551	.00654	7.1493	.00230	-.00138
#2	-.00110	.00077	-.00014	.04768	2.2091	.00837	7.1859	.00222	-.00110

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.4300	-.00030	.08599	-.00042	.58317	-.00422	.00470	27.125	58.048
Stddev	.0103	.00066	.00234	.00134	.00481	.00162	.00057	.145	.311
%RSD	.13834	221.53	2.7200	317.65	.82504	38.324	12.046	.53578	.53578

#1	7.4227	-.00076	.08764	.00052	.57977	-.00537	.00430	27.023	57.828
#2	7.4372	.00017	.08434	-.00137	.58658	-.00308	.00510	27.228	58.268

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00000	.08193	-.00061	-.00017	-.00033	.00557	.01594	.00459	-.00037
Stddev	.00017	.00007	.00150	.00055	.00125	.02878	.00044	.00082	.00250
%RSD	3833.8	.08251	244.60	332.28	378.99	516.54	2.7572	17.824	683.44

#1	-.00012	.08189	.00045	.00022	-.00121	-.01478	.01563	.00401	.00140
#2	.00013	.08198	-.00167	-.00056	.00055	.02592	.01625	.00517	-.00214

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4992.4	61666.	7181.7
Stddev	8.4	445.	2.2
%RSD	.16825	.72143	.03074

#1	4986.5	61981.	7183.3
#2	4998.4	61352.	7180.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00102	.00940	.00335	.00017	-.00012	-.00001	.00340	.20224	-.00030
Stddev	.00003	.00015	.00166	.00011	.00016	.00007	.00108	.00046	.00024
%RSD	2.5663	1.6309	49.444	63.994	133.11	623.14	31.834	.22594	78.836

#1	.00104	.00929	.00218	.00025	-.00024	-.00006	.00264	.20192	-.00047
#2	.00100	.00951	.00452	.00009	-.00001	.00004	.00417	.20257	-.00013

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00002	.00004	.00033	.01092	.25811	.00199	.03967	.00053	-.00049
Stddev	.00025	.00030	.00026	.00012	.04292	.00104	.00089	.00006	.00034
%RSD	1281.3	737.76	80.123	1.0558	16.628	52.084	2.2387	10.427	70.310

#1	-.00016	-.00017	.00051	.01100	.22777	.00272	.04030	.00049	-.00073
#2	.00020	.00025	.00014	.01084	.28846	.00126	.03905	.00057	-.00024

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.62349	.00414	.00116	.00085	.02377	-.00070	-.00040	.29331	.62768
Stddev	.00313	.00007	.00058	.00011	.00003	.00070	.00085	.02134	.04567
%RSD	.50146	1.6044	50.252	13.247	.11842	99.330	212.87	7.2757	7.2757

#1	.62128	.00418	.00075	.00093	.02379	-.00119	.00020	.27822	.59539
#2	.62570	.00409	.00157	.00077	.02375	-.00021	-.00100	.30840	.65997

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00134	.00026	-.00202	-.00040	-.00046	.01128	.00001	.00278	-.00146
Stddev	.00016	.00007	.00026	.00003	.00012	.00301	.00071	.00076	.00084
%RSD	12.072	26.179	12.752	6.9775	26.083	26.662	5162.7	27.408	57.665

#1	.00145	.00021	-.00220	-.00038	-.00054	.01341	.00052	.00332	-.00205
#2	.00122	.00030	-.00184	-.00042	-.00037	.00915	-.00049	.00224	-.00086

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4990.5	62548.	7256.6
Stddev	7.0	69.	16.0
%RSD	.14112	.11101	.22080

#1	4995.4	62498.	7268.0
#2	4985.5	62597.	7245.3

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00101	49.510	.00227	.00061	.00036	.00006	.99530	-.00026	.00001	-.00118	.00075
Stddev	.00083	.142	.00262	.00014	.00005	.00000	.00064	.00408	.00003	.00017	.00026
%RSD	82.293	.28737	115.56	23.843	14.115	1.0616	.06468	1590.6	591.50	14.617	35.443

#1	.00042	49.409	.00041	.00050	.00039	.00006	.99576	-.00314	.00003	-.00130	.00056
#2	.00159	49.611	.00412	.00071	.00032	.00006	.99485	.00263	-.00002	-.00106	.00093

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00485	47.493	.29033	.00521	.00343	-.00208	-.00054	244.77	.00311	.00530	.00112
Stddev	.00034	.515	.03724	.00032	.00184	.00005	.00017	.11	.00032	.00087	.00098
%RSD	7.0607	1.0836	12.826	6.1764	53.467	2.4487	31.526	.04690	10.336	16.469	87.733

#1	.00509	47.129	.26400	.00544	.00473	-.00204	-.00066	244.85	.00333	.00591	.00043
#2	.00461	47.857	.31666	.00498	.00214	-.00212	-.00042	244.69	.00288	.00468	.00182

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4.6962	-.00212	-.00143	-.01827	-.03909	-.00725	.00029	4.9288	-.00010	.00284	W 10.688
Stddev	.0458	.00197	.00146	.01240	.02653	.00046	.00001	.0094	.00002	.00175	.046
%RSD	.97478	92.697	101.49	67.859	67.859	6.2801	2.4495	.19129	22.080	61.587	4.2630

#1	4.7286	-.00073	-.00246	-.02703	-.05785	-.00693	.00028	4.9222	-.00011	.00160	10.720
#2	4.6639	-.00351	-.00040	-.00950	-.02034	-.00757	.00029	4.9355	-.00008	.00407	10.656

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value	5.0000										10.000
Range	-5.0000%										5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00277	.00160	.01120
Stddev	.00016	.00033	.00510
%RSD	5.9302	20.750	45.552

#1	.00289	.00183	.00759
#2	.00265	.00136	.01480

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4774.5	58593.	7027.5
Stddev	3.3	86.	94.3
%RSD	.06887	.14670	1.3421

#1	4772.1	58532.	7094.2
#2	4776.8	58654.	6960.8

Sample Name: CCV-3333645 Acquired: 6/16/2015 16:26:44 Type: QC

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.54056	.54952	.99409	.51779	.49275	.48303	-.00041	4.7863	.50741	.50980	.48132	.51853	2.4262
Stddev	.00120	.00173	.00417	.00064	.00200	.00065	.00389	.0225	.00077	.00053	.00158	.00123	.0050
%RSD	.22161	.31448	.41953	.12435	.40554	.13448	939.48	.46930	.15092	.10456	.32773	.23806	.20783

#1	.53971	.55074	.99114	.51734	.49134	.48257	.00234	4.7704	.50795	.51018	.48244	.51766	2.4297
#2	.54140	.54830	.99704	.51825	.49416	.48349	-.00317	4.8022	.50687	.50943	.48021	.51940	2.4226

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.531	1.0044	20.995	.51548	.48975	5.3232	.52412	1.0596	1.0592	.01938	1.0312	1.0196	4.8213
Stddev	.013	.0030	.022	.00167	.00135	.0045	.00002	.0064	.0065	.00023	.0015	.0005	.0105
%RSD	.02494	.29776	.10555	.32480	.27532	.08510	.00444	.60203	.61046	1.1841	.14523	.04659	.21772

#1	50.540	1.0065	21.011	.51666	.49070	5.3264	.52411	1.0551	1.0546	.01954	1.0323	1.0200	4.8138
#2	50.522	1.0023	20.979	.51429	.48879	5.3200	.52414	1.0641	1.0638	.01922	1.0301	1.0193	4.8287

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.318	.97535	.49362	-.00412	.51450	1.0031	-.02180	.52963	.49927	.50673
Stddev	.022	.00176	.00230	.00037	.00110	.0047	.00196	.00047	.00069	.00208
%RSD	.21772	.18053	.46560	9.0689	.21309	.47333	9.0014	.08925	.13756	.41002

#1	10.302	.97659	.49199	-.00386	.51527	1.0065	-.02319	.52929	.49975	.50820
#2	10.333	.97410	.49524	-.00439	.51372	.99977	-.02042	.52996	.49878	.50526

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4908.2	61173.	7210.4
Stddev	10.1	183.	59.8
%RSD	.20522	.29873	.82885

#1	4901.0	61044.	7168.2
#2	4915.3	61302.	7252.7

Sample Name: CCB Acquired: 6/16/2015 16:29:10 Type: QC
 Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00058	-.00011	.00310	-.00015	-.00041	.00002	.00546	-.00392	-.00020	.00028	.00004	-.00040	-.00195
Stddev	.00014	.00000	.00090	.00006	.00011	.00006	.00202	.00022	.00004	.00013	.00002	.00005	.00151
%RSD	24.582	1.5893	28.851	36.024	27.268	291.26	36.967	5.4939	19.644	46.527	53.945	11.996	77.209

#1	.00068	-.00011	.00247	-.00019	-.00049	-.00002	.00688	-.00377	-.00023	.00019	.00006	-.00036	-.00302
#2	.00048	-.00012	.00374	-.00012	-.00033	.00006	.00403	-.00407	-.00017	.00037	.00003	-.00043	-.00089

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.23834	.00233	.00014	-.00004	-.00041	.20729	.00055	.00061	-.00010	.01244	-.00070	-.00128	.00611
Stddev	.01539	.00061	.00519	.00009	.00001	.01310	.00003	.00133	.00085	.00272	.00016	.00106	.01887
%RSD	6.4588	26.263	3738.3	220.56	1.2198	6.3213	5.3191	216.11	874.62	21.851	23.354	82.767	308.94

#1	.24922	.00190	.00381	-.00010	-.00041	.19803	.00053	-.00032	.00051	.01051	-.00081	-.00204	-.00724
#2	.22745	.00276	-.00353	.00002	-.00041	.21656	.00057	.00155	-.00070	.01436	-.00058	-.00053	.01945

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01307	-.00060	.00006	-.00201	-.00052	-.00094	.01171	-.00038	.00063	.00000
Stddev	.04039	.00006	.00002	.00164	.00014	.00029	.01085	.00006	.00040	.0008
%RSD	308.94	9.9618	40.150	81.858	27.056	30.501	92.719	16.541	63.666	85547.

#1	-.01548	-.00055	.00004	-.00084	-.00062	-.00115	.01938	-.00043	.00035	.00060
#2	.04163	-.00064	.00008	-.00317	-.00042	-.00074	.00403	-.00034	.00092	-.00060

Check ?	Chk Pass									
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5004.9	63112.	7313.4
Stddev	8.1	631.	8.8
%RSD	.16209	.99950	.12035

#1	4999.2	62666.	7307.1
#2	5010.7	63558.	7319.6

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01165	.11794	F .02057	.10597	.00979	.00104	.11643	.20405	.00517	.01086	.00994	.01584
Stddev	.00053	.00045	.00021	.00006	.00023	.00007	.00153	.00547	.00016	.00013	.00012	.00084
%RSD	4.5914	.38350	1.0221	.06035	2.3314	6.5575	1.3172	2.6786	3.0567	1.2144	1.2026	5.3226

#1	.01127	.11826	.02042	.10602	.00995	.00109	.11535	.20791	.00506	.01077	.00986	.01525
#2	.01203	.11762	.02072	.10593	.00963	.00099	.11752	.20018	.00528	.01096	.01003	.01644

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass								
Value			.01500									
Range			30.000%									

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10234	3.3368	.01134	.22923	.01093	.01911	1.2701	.04403	3.1640	.01046	.01410	F .00662
Stddev	.00084	.0234	.00138	.00060	.00022	.00031	.0111	.00033	.0109	.00035	.00137	.00015
%RSD	.82404	.70000	12.165	.26290	1.9831	1.6021	.87006	.75610	.34585	3.3405	9.6869	2.2308

#1	.10294	3.3203	.01037	.22880	.01077	.01889	1.2623	.04380	3.1563	.01071	.01506	.00652
#2	.10174	3.3533	.01232	.22966	.01108	.01933	1.2780	.04427	3.1717	.01021	.01313	.00673

Check ?	Chk Pass	None	Chk Fail									
Value												.01000
Range												-30.000%

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01532	4.8220	1.0319	.09936	.01035	.01432	.01042	.01580	.05856	.01103	.02393	.01272
Stddev	.00103	.00880	.0188	.00161	.00004	.00129	.00022	.00006	.01162	.00001	.00136	.00129
%RSD	6.6938	1.8251	1.8251	1.6187	.35484	9.0352	2.1363	.36032	19.849	.11851	5.6953	10.149

#1	.01605	.47597	1.0186	.09822	.01038	.01523	.01026	.01576	.05034	.01104	.02297	.01180
#2	.01460	.48842	1.0452	.10049	.01033	.01340	.01057	.01584	.06678	.01102	.02489	.01363

Check ?	Chk Pass											
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5020.7	61959.	7228.1
Stddev	2.5	33.	32.3
%RSD	.04980	.05324	.44710

#1	5018.9	61982.	7205.2
#2	5022.4	61936.	7250.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00045	.00402	.00249	.00103	.00065	.00007	.00029	F .21478	.00010
Stddev	.00030	.00022	.00059	.00032	.00033	.00003	.00038	.00610	.00005
%RSD	64.925	5.4683	23.838	31.372	51.394	37.694	133.15	2.8413	51.621

#1	.00025	.00417	.00207	.00080	.00041	.00009	.00055	.21910	.00006
#2	.00066	.00386	.00291	.00126	.00089	.00005	.00002	.21047	.00014

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit								.20000	
Low Limit								-.20000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00008	.00035	.00023	W .06601	.23881	.00113	.07584	.00054	-0.00056
Stddev	.00004	.00000	.00006	.00044	.05396	.00064	.00285	.00005	.00023
%RSD	45.751	1.2446	27.817	.66015	22.594	57.094	3.7532	8.5747	41.355

#1	-0.00006	.00034	.00027	.06632	.27697	.00158	.07785	.00051	-0.00040
#2	-0.00011	.00035	.00018	.06570	.20066	.00067	.07383	.00057	-0.00072

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				.05000					
Low Limit				-.05000					

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.33014	.00060	.01286	.00052	.01669	-0.00232	-0.00099	.01907	.04080
Stddev	.00717	.00004	.00212	.00021	.00369	.00130	.00023	.01595	.03414
%RSD	2.1715	5.8641	16.469	40.469	22.130	55.896	22.762	83.683	83.683

#1	.33521	.00062	.01137	.00037	.01930	-0.00324	-0.00115	.00778	.01666
#2	.32507	.00057	.01436	.00067	.01408	-0.00140	-0.00083	.03035	.06494

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00793	.00063	.00065	-0.00021	-0.0134	-0.01475	.00001	.00285	-0.00283
Stddev	.00050	.00001	.00089	.00013	.00240	.00369	.00008	.00030	.00066
%RSD	6.2528	1.3650	137.94	59.777	178.88	25.053	1120.6	10.688	23.298

#1	.00758	.00062	.00002	-0.00012	.00036	-0.01736	.00006	.00264	-0.00330
#2	.00828	.00064	.00128	-0.00030	-0.00304	-0.01213	-0.00005	.00307	-0.00237

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4945.5	62868.	7204.4
Stddev	6.0	242.	70.2
%RSD	.12058	.38516	.97393

#1	4949.7	63039.	7154.8
#2	4941.3	62696.	7254.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05475	1.9571	.95815	1.0091	1.9164	.04650	2.0320	46.335	.09932
Stddev	.00103	.0034	.00452	.0013	.0053	.00012	.0090	.194	.00009
%RSD	1.8788	.17317	.47166	.13281	.27777	.26343	.44242	.41926	.08560

#1	.05402	1.9547	.95495	1.0082	1.9127	.04642	2.0256	46.197	.09926
#2	.05548	1.9595	.96135	1.0100	1.9202	.04659	2.0383	46.472	.09938

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48264	F .18506	.24776	1.0622	50.789	.99006	48.687	.48779	.96603
Stddev	.00057	.00024	.00116	.0057	.198	.00212	.004	.00099	.00100
%RSD	.11883	.12942	.46950	.53875	.39045	.21396	.00782	.20327	.10353

#1	.48305	.18523	.24693	1.0581	50.648	.98857	48.685	.48849	.96532
#2	.48224	.18490	.24858	1.0662	50.929	.99156	48.690	.48708	.96673

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05700							
Low Limit		.04350							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.736	.47989	10.175	.48612	1.8810	.48606	1.9354	2.6148	5.5956
Stddev	.419	.00001	.001	.00030	.0046	.00038	.0009	.0062	.0132
%RSD	.82683	.00261	.01336	.06207	.24370	.07787	.04617	.23654	.23654

#1	50.439	.47988	10.174	.48590	1.8842	.48632	1.9347	2.6104	5.5863
#2	51.033	.47990	10.176	.48633	1.8777	.48579	1.9360	2.6191	5.6050

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.8500	.95452	.91477	.97414	1.9243	2.0198	.49418	.47521	.47415
Stddev	.0048	.00233	.00233	.00065	.0011	.0293	.00128	.00211	.00109
%RSD	.25914	.24399	.25455	.06676	.05711	1.4500	.25874	.44373	.22918

#1	1.8466	.95287	.91313	.97460	1.9235	1.9991	.49508	.47670	.47338
#2	1.8534	.95617	.91642	.97368	1.9251	2.0405	.49327	.47371	.47492

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4724.7	59947.	7083.9
Stddev	2.7	146.	16.4
%RSD	.05759	.24415	.23182

#1	4722.8	60051.	7095.5
#2	4726.6	59844.	7072.3

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0059	62.677	.03733	.03498	.45340	.00304	-0.00433	14.512	.00106
Stddev	.00039	.095	.00044	.00005	.00010	.00013	.00162	.009	.00014
%RSD	66.262	.15170	1.1865	.15294	.02261	4.2911	37.391	.06192	13.444

#1	-0.0087	62.609	.03765	.03494	.45333	.00313	-0.00548	14.518	.00096
#2	-0.00031	62.744	.03702	.03502	.45347	.00294	-0.00319	14.505	.00116

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03901	W .12451	.07480	104.25	20.180	.08219	20.314	1.6606	.00251
Stddev	.00002	.00018	.00053	.39	.067	.00108	.028	.0005	.00008
%RSD	.04955	.14848	.70387	.37451	.32981	1.3178	.13652	.02878	3.3404

#1	.03903	.12438	.07518	103.97	20.133	.08143	20.294	1.6603	.00257
#2	.03900	.12464	.07443	104.53	20.227	.08296	20.334	1.6609	.00245

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.70696	.07218	W 4.0719	.05771	.31196	-0.00374	.00233	1.3884	2.9711
Stddev	.00531	.00015	.0091	.00123	.00441	.00192	.00139	.0006	.0014
%RSD	.75113	.20409	.22238	2.1309	1.4125	51.375	59.639	.04669	.04669

#1	.71071	.07229	4.0655	.05684	.30884	-0.00509	.00331	1.3879	2.9702
#2	.70320	.07208	4.0783	.05858	.31507	-0.00238	.00134	1.3888	2.9721

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00934	.15241	.13679	1.6154	.00670	W -.09111	.20668	.29826	.03488
Stddev	.00002	.00004	.00066	.0007	.00013	.02385	.00029	.00262	.00039
%RSD	.20170	.02728	.48295	.04540	1.9591	26.178	.14090	.87779	1.1213

#1	.00935	.15238	.13726	1.6159	.00661	-.10797	.20647	.29641	.03460
#2	.00933	.15244	.13632	1.6149	.00680	-.07424	.20688	.30011	.03516

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	5227.0	65187.	7745.4
Stddev	7.8	155.	74.8
%RSD	.14830	.23747	.96514

#1	5221.6	65296.	7692.5
#2	5232.5	65078.	7798.3

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00056	14.432	.01244	.00732	.10151	.00072	.00303	3.3765	.00019
Stddev	.00015	.038	.00086	.00057	.00008	.00003	.00121	.0095	.00009
%RSD	26.736	.26433	6.9077	7.7309	.07620	3.5722	39.948	.28055	46.404

#1	.00046	14.405	.01305	.00772	.10156	.00070	.00217	3.3832	.00013
#2	.00067	14.459	.01183	.00692	.10145	.00074	.00388	3.3698	.00025

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00940	.02875	.01675	24.084	4.6617	.01891	4.8059	.38033	-.00003
Stddev	.00023	.00065	.00053	.057	.0082	.00041	.0182	.00066	.00018
%RSD	2.4761	2.2536	3.1511	.23460	.17549	2.1883	.37909	.17355	724.75

#1	.00956	.02921	.01712	24.124	4.6559	.01862	4.8187	.37987	.00011
#2	.00923	.02829	.01637	24.044	4.6674	.01920	4.7930	.38080	-.00016

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.24175	.01727	.95576	.01403	.08077	-.00121	.00092	.31731	.67904
Stddev	.00783	.00032	.01061	.00110	.00227	.00110	.00128	.00966	.02067
%RSD	3.2398	1.8698	1.1106	7.8452	2.8132	90.746	139.34	3.0434	3.0434

#1	.23621	.01750	.96326	.01481	.08238	-.00199	.00001	.32414	.69366
#2	.24729	.01704	.94825	.01325	.07916	-.00043	.00182	.31048	.66443

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00212	.03536	.03118	.36407	.00092	-.02993	.04684	.07353	.00724
Stddev	.00051	.00012	.00044	.00033	.00063	.01478	.00010	.00062	.00015
%RSD	23.915	.33240	1.4227	.09125	68.600	49.387	.20342	.84163	2.0091

#1	.00176	.03528	.03087	.36383	.00136	-.04038	.04678	.07309	.00735
#2	.00248	.03545	.03150	.36430	.00047	-.01948	.04691	.07397	.00714

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	5094.7	63288.	7290.4
Stddev	1.5	59.	10.6
%RSD	.03018	.09389	.14548

#1	5095.8	63330.	7297.9
#2	5093.6	63246.	7282.9

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05263	100.91	.97493	1.0122	2.5567	.05112	F 1.9095	63.320	.09709
Stddev	.00057	.01	.00110	.0006	.0029	.00001	.0093	.187	.00042
%RSD	1.0768	.00834	.11261	.05680	.11323	.02859	.48716	.29587	.43149

#1	.05303	100.90	.97570	1.0126	2.5547	.05113	1.9160	63.453	.09739
#2	.05223	100.91	.97415	1.0118	2.5588	.05111	1.9029	63.188	.09679

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51565	W .35446	.33176	114.20	80.674	1.1049	73.617	2.2551	.94388
Stddev	.00126	.00146	.00058	.06	.076	.0007	.091	.0015	.00328
%RSD	.24367	.41283	.17585	.05578	.09460	.06649	.12334	.06841	.34743

#1	.51654	.35549	.33218	114.25	80.728	1.1044	73.552	2.2562	.94620
#2	.51476	.35342	.33135	114.16	80.620	1.1054	73.681	2.2540	.94156

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.781	.54949	W 14.022	.52670	2.1199	.29652	1.8773	4.0238	8.6109
Stddev	.142	.00164	.028	.00027	.0008	.00130	.0075	.0154	.0329
%RSD	.27886	.29762	.19890	.05183	.03557	.43967	.39850	.38191	.38191

#1	50.881	.55065	14.041	.52690	2.1194	.29745	1.8720	4.0346	8.6341
#2	50.681	.54834	14.002	.52651	2.1205	.29560	1.8826	4.0129	8.5876

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.7809	1.1617	1.0773	3.5690	1.7874	1.9634	.78511	.78724	.51884
Stddev	.0017	.0000	.0006	.0054	.0055	.0052	.00197	.00504	.00429
%RSD	.09713	.00201	.05375	.15152	.30794	.26249	.25144	.63984	.82646

#1	1.7797	1.1616	1.0769	3.5729	1.7913	1.9671	.78651	.79081	.52187
#2	1.7822	1.1617	1.0777	3.5652	1.7835	1.9598	.78372	.78368	.51581

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	5064.7	62974.	7467.6
Stddev	.7	180.	81.1
%RSD	.01456	.28612	1.0859

#1	5064.2	62846.	7410.2
#2	5065.2	63101.	7524.9

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05257	107.39	.96781	.99932	2.5509	.05084	F 1.8836	63.054	.09630
Stddev	.00017	.03	.00552	.00188	.0028	.00009	.0022	.159	.00001
%RSD	.32117	.02623	.57064	.18838	.10929	.17607	.11635	.25225	.01407

#1	.05245	107.37	.96391	.99799	2.5529	.05078	1.8852	63.167	.09631
#2	.05269	107.41	.97172	1.0007	2.5490	.05091	1.8821	62.942	.09629

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51679	W .35024	.33795	122.77	81.740	1.0925	75.471	2.3942	.93199
Stddev	.00170	.00205	.00112	.03	.109	.0043	.140	.0045	.00012
%RSD	.32921	.58525	.33044	.02462	.13375	.39591	.18606	.18629	.01258

#1	.51559	.35169	.33874	122.74	81.817	1.0955	75.570	2.3974	.93190
#2	.51799	.34880	.33716	122.79	81.662	1.0894	75.371	2.3911	.93207

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.052	.55113	W 14.013	.52797	2.1132	.28223	1.8412	3.9417	8.4353
Stddev	.310	.00037	.002	.00319	.0008	.00447	.0186	.0118	.0252
%RSD	.61994	.06776	.01642	.60430	.03720	1.5823	1.0113	.29897	.29897

#1	49.833	.55087	14.015	.52571	2.1138	.28538	1.8544	3.9334	8.4175
#2	50.272	.55140	14.012	.53022	2.1127	.27907	1.8280	3.9501	8.4531

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.7489	1.1589	1.0897	3.6153	1.7604	1.9564	.80077	.81373	.51159
Stddev	.0123	.0017	.0045	.0108	.0130	.0321	.00358	.00252	.00098
%RSD	.70496	.14213	.41467	.29785	.73840	1.6426	.44733	.31027	.19145

#1	1.7576	1.1600	1.0929	3.6229	1.7696	1.9791	.80330	.81195	.51228
#2	1.7402	1.1577	1.0865	3.6076	1.7512	1.9337	.79824	.81552	.51089

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	5066.6	62975.	7581.1
Stddev	21.6	305.	20.1
%RSD	.42571	.48467	.26455

#1	5081.8	62759.	7595.3
#2	5051.3	63191.	7566.9

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0056	52.907	.03585	.04292	.37436	.00262	-0.00518	14.673	.00088
Stddev	.00023	.209	.00124	.00023	.00020	.00005	.00193	.025	.00010
%RSD	41.448	.39450	3.4473	.52639	.05408	1.8040	37.196	.16828	11.041

#1	-0.0040	53.055	.03498	.04308	.37422	.00259	-0.00654	14.690	.00081
#2	-0.0073	52.760	.03672	.04276	.37451	.00265	-0.00381	14.655	.00095

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03726	W .11993	.06905	97.755	17.959	.07339	17.582	1.4627	.00211
Stddev	.00017	.00015	.00071	.215	.023	.00094	.027	.0001	.00008
%RSD	.46912	.12500	1.0277	.21951	.12972	1.2875	.15403	.00627	3.6428

#1	.03739	.11982	.06955	97.907	17.975	.07406	17.563	1.4628	.00216
#2	.03714	.12003	.06854	97.603	17.942	.07272	17.602	1.4626	.00205

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.95124	.06621	W 4.3489	.05890	.32872	-.00258	.00598	1.3396	2.8666
Stddev	.00586	.00021	.0053	.00093	.00353	.00212	.00226	.0337	.0721
%RSD	.61601	.32408	.12159	1.5710	1.0725	82.019	37.822	2.5158	2.5158

#1	.95539	.06606	4.3527	.05825	.32623	-.00108	.00758	1.3634	2.9176
#2	.94710	.06636	4.3452	.05956	.33121	-.00408	.00438	1.3157	2.8156

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00989	.21511	.12480	1.4775	.00436	W -.08414	.19675	.27649	.03294
Stddev	.00003	.00061	.00065	.0004	.00011	.03796	.00001	.00273	.00118
%RSD	.30312	.28360	.51845	.02348	2.5305	45.115	.00397	.98661	3.5720

#1	.00987	.21554	.12434	1.4777	.00443	-.05730	.19674	.27842	.03377
#2	.00991	.21468	.12525	1.4772	.00428	-.11099	.19676	.27456	.03211

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	5193.0	64991.	7633.5
Stddev	9.1	41.	67.7
%RSD	.17472	.06234	.88735

#1	5199.4	65020.	7585.6
#2	5186.6	64963.	7681.3

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0075	77.336	.03862	.04057	.63501	.00365	-0.00872	54.311	.00127
Stddev	.00032	.198	.00040	.00048	.00333	.00002	.00088	.170	.00006
%RSD	42.356	.25619	1.0479	1.1895	.52363	.51043	10.083	.31321	4.5805

#1	-0.0053	77.476	.03833	.04023	.63736	.00367	-0.00810	54.432	.00131
#2	-0.0098	77.196	.03890	.04091	.63266	.00364	-0.00934	54.191	.00123

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04265	W .13156	.08184	110.95	26.738	.10145	28.120	1.7327	.00116
Stddev	.00062	.00174	.00049	.06	.066	.00060	.063	.0047	.00031
%RSD	1.4589	1.3213	.60262	.05031	.24666	.58889	.22319	.27112	26.407

#1	.04309	.13279	.08219	110.99	26.785	.10103	28.075	1.7293	.00094
#2	.04221	.13033	.08149	110.91	26.692	.10188	28.164	1.7360	.00137

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.78240	.08519	W 5.0706	.06018	.39803	-0.00494	.00926	1.5435	3.3031
Stddev	.01231	.00123	.0589	.00065	.00412	.00214	.00127	.0159	.0340
%RSD	1.5728	1.4480	1.1623	1.0725	1.0360	43.303	13.756	1.0292	1.0292

#1	.79110	.08606	5.1123	.06064	.40095	-.00646	.00836	1.5547	3.3271
#2	.77369	.08431	5.0289	.05973	.39512	-.00343	.01016	1.5323	3.2791

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01013	.24165	.13599	1.7094	.01015	W -.07737	.21439	.32845	.04574
Stddev	.00142	.00063	.00029	.0041	.00242	.00474	.00170	.00122	.00219
%RSD	13.981	.26243	.21175	.23847	23.814	6.1263	.79309	.37258	4.7971

#1	.01114	.24210	.13619	1.7065	.00844	-.08073	.21318	.32758	.04419
#2	.00913	.24120	.13578	1.7122	.01186	-.07402	.21559	.32931	.04729

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	5168.5	64213.	7602.5
Stddev	5.3	463.	38.3
%RSD	.10199	.72132	.50352

#1	5164.8	64540.	7575.4
#2	5172.3	63885.	7629.6

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0034	156.38	.05144	.04901	1.2633	.00810	-0.00916	70.204	.00207
Stddev	.00073	.04	.00170	.00004	.0054	.00000	.00151	.234	.00004
%RSD	212.25	.02644	3.3107	.07828	.42856	.00285	16.431	.33377	1.9675

#1	-0.0086	156.35	.05264	.04899	1.2595	.00810	-0.00810	70.038	.00210
#2	.00017	156.41	.05023	.04904	1.2672	.00810	-.01023	70.370	.00204

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06681	W .23850	.18844	190.82	39.140	.20568	51.241	1.7462	.00181
Stddev	.00003	.00013	.00007	.22	.111	.00161	.012	.0001	.00024
%RSD	.04629	.05613	.03861	.11734	.28270	.78404	.02284	.00695	13.178

#1	.06683	.23840	.18839	190.66	39.062	.20454	51.233	1.7461	.00198
#2	.06678	.23859	.18849	190.98	39.218	.20682	51.249	1.7463	.00164

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.8618	.14070	W 5.3482	.13952	.81330	-.00425	.01147	1.6097	3.4448
Stddev	.0031	.00056	.0047	.00075	.00231	.00119	.00124	.0046	.0098
%RSD	.16647	.39510	.08817	.53835	.28347	28.077	10.823	.28407	.28407

#1	1.8596	.14110	5.3448	.14005	.81493	-.00341	.01234	1.6065	3.4379
#2	1.8640	.14031	5.3515	.13899	.81167	-.00510	.01059	1.6129	3.4517

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01688	.40940	.15007	3.2768	.01142	W -.07052	.38999	.60944	.07889
Stddev	.00003	.00160	.00197	.0003	.00244	.00596	.00020	.00071	.00022
%RSD	.15526	.38978	1.3100	.01035	21.366	8.4541	.05196	.11625	.27841

#1	.01686	.40827	.14868	3.2766	.01314	-.06631	.39013	.60994	.07874
#2	.01690	.41053	.15146	3.2770	.00969	-.07474	.38984	.60894	.07905

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	5243.3	65137.	7763.8
Stddev	9.1	31.	82.9
%RSD	.17386	.04823	1.0677

#1	5249.7	65115.	7705.2
#2	5236.8	65159.	7822.4

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00104	49.210	.00240	.00164	.00032	.00008	.99405	.00013	.00016	-.00110	.00055
Stddev	.00031	.104	.00066	.00051	.00021	.00011	.00251	.00349	.00000	.00029	.00000
%RSD	29.720	.21127	27.522	30.920	65.835	147.38	.25298	2665.4	.83663	26.860	.38338

#1	.00082	49.136	.00287	.00200	.00017	.00000	.99227	.00260	.00016	-.00089	.00055
#2	.00126	49.283	.00193	.00128	.00046	.00016	.99583	-.00234	.00016	-.00130	.00055

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00507	47.787	.26421	.00456	.00392	-.00238	-.00073	247.25	.00211	.00818	.00243
Stddev	.00009	.620	.00914	.00027	.00061	.00003	.00029	.01	.00022	.00172	.00090
%RSD	1.8034	1.2977	3.4575	5.9902	15.563	1.0753	39.486	.00248	10.609	21.022	36.902

#1	.00513	48.225	.27067	.00475	.00349	-.00240	-.00093	247.25	.00227	.00696	.00306
#2	.00500	47.348	.25775	.00437	.00436	-.00236	-.00052	247.26	.00195	.00939	.00179

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4.7381	-.00410	-.00214	-.03564	-.07626	-.00725	.00044	4.9479	-.00034	.00193	W 10.637
Stddev	.0406	.00160	.00418	.00394	.00843	.00056	.00003	.0065	.00040	.00007	.092
%RSD	.85688	38.936	195.08	11.048	11.048	7.7898	7.1997	.13151	117.07	3.8002	.86677

#1	4.7094	-.00297	-.00509	-.03285	-.07031	-.00765	.00042	4.9433	-.00006	.00188	10.702
#2	4.7668	-.00523	.00081	-.03842	-.08222	-.00685	.00046	4.9525	-.00062	.00198	10.572

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value	5.0000										10.000
Range	-5.0000%										5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00279	.00092	.00797
Stddev	.00015	.00050	.00002
%RSD	5.3391	54.496	.30240

#1	.00269	.00128	.00799
#2	.00290	.00057	.00795

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4777.6	59468.	6961.0
Stddev	2.1	7.	46.5
%RSD	.04381	.01193	.66731

#1	4776.1	59463.	6993.8
#2	4779.0	59473.	6928.1

Sample Name: CCV-3333645 Acquired: 6/16/2015 16:58:47 Type: QC

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52426	F .56139	.99732	.51026	.49649	.48597	-.00059	4.8447	.50413	.51516	.48579	.51196
Stddev	.00322	.00042	.00650	.00263	.00382	.00241	.00079	.0369	.00012	.00821	.00050	.00258
%RSD	.61352	.07538	.65165	.51452	.76994	.49545	132.81	.76160	.02364	1.5943	.10344	.50476

#1	.52199	.56169	.99273	.50841	.49919	.48767	-.00004	4.8708	.50422	.52097	.48614	.51379
#2	.52653	.56109	1.0019	.51212	.49379	.48427	-.00115	4.8186	.50405	.50935	.48543	.51013

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass				
Value		.50000										
Range		10.490%										

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.4349	50.844	1.0082	20.812	.51346	.49534	5.2289	.51648	1.0415	1.0441	.01026	1.0127
Stddev	.0086	.248	.0047	.024	.00151	.00289	.0517	.00927	.0121	.0126	.00181	.0133
%RSD	.35543	.48678	.46829	.11505	.29479	.58266	.98875	1.7953	1.1665	1.2044	17.608	1.3126

#1	2.4410	51.019	1.0115	20.795	.51239	.49738	5.2655	.52303	1.0501	1.0530	.01154	1.0221
#2	2.4288	50.669	1.0049	20.829	.51453	.49330	5.1924	.50992	1.0329	1.0352	.00899	1.0033

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0025	4.8664	10.414	.98057	.49631	-.00291	.50958	1.0068	-.00635	.52150	.50755	.50583
Stddev	.0131	.0528	.113	.01021	.00300	.00063	.00074	.0113	.03184	.00018	.00327	.00371
%RSD	1.3101	1.0857	1.0857	1.0411	.60482	21.589	.14437	1.1251	501.82	.03436	.64448	.73333

#1	1.0118	4.9037	10.494	.98779	.49843	-.00335	.50906	1.0148	.01617	.52162	.50524	.50845
#2	.99326	4.8290	10.334	.97335	.49419	-.00246	.51010	.99877	-.02886	.52137	.50987	.50320

Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass				
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4858.4	60932.	7012.5
Stddev	1.2	643.	136.5
%RSD	.02443	1.0550	1.9463

#1	4857.5	61387.	6916.0
#2	4859.2	60478.	7109.0

Sample Name: CCB Acquired: 6/16/2015 17:01:14 Type: QC
 Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0001	.00006	.00247	-0.00030	-0.00027	.00005	.00324	-0.00676	-0.00007	.00028	.00003	-0.00053	-0.00322
Stddev	.00035	.00022	.00098	.00035	.00039	.00006	.00062	.00152	.00003	.00020	.00007	.00010	.00027
%RSD	2590.2	358.67	39.806	115.92	146.08	101.71	19.050	22.476	47.573	71.869	188.94	18.732	8.3516

#1	.00024	-0.00009	.00177	-0.00005	-0.00055	.00002	.00368	-0.00569	-0.00010	.00042	.00008	-0.00046	-0.00341
#2	-0.00026	.00021	.00316	-0.00055	.00001	.00009	.00281	-0.00784	-0.00005	.00014	-0.00001	-0.00060	-0.00303

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.12610	.00250	-0.00147	.00001	-0.00028	.10771	.00028	.00051	-0.00064	.00274	-0.00225	-0.00224	.00295
Stddev	.04152	.00033	.00495	.00003	.00007	.00039	.00019	.00138	.00058	.00054	.00052	.00127	.02521
%RSD	32.925	13.344	337.18	226.16	25.038	.36397	66.802	273.36	90.388	19.677	23.334	56.759	854.04

#1	.09674	.00273	-0.00497	.00003	-0.00023	.10799	.00015	-0.00047	-0.00023	.00236	-0.00262	-0.00134	-0.01487
#2	.15546	.00226	.00203	-0.00001	-0.00033	.10744	.00041	.00148	-0.00105	.00312	-0.00188	-0.00314	.02077

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00632	-0.00083	-0.00004	-0.00007	-0.00059	.00000	-0.02030	.00004	.00042	-0.00136
Stddev	.05394	.00069	.00007	.00098	.00042	.0008	.00420	.00020	.00017	.00039
%RSD	854.04	82.165	186.81	1428.9	71.696	37919.	20.697	460.85	40.959	28.812

#1	-0.03183	-0.00035	-0.00009	-0.00076	-0.00029	-0.00057	-0.01733	.00018	.00054	-0.00163
#2	.04446	-0.00132	.00001	.00062	-0.00088	.00056	-0.02327	-0.00010	.00030	-0.00108

Check ?	Chk Pass									
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4987.4	62256.	7049.2
Stddev	4.2	462.	54.9
%RSD	.08500	.74211	.77868

#1	4984.4	62583.	7088.0
#2	4990.4	61930.	7010.4

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01119	.12529	F .02023	.10611	.00976	.00099	.11739	.21106	.00535	.01096	.01020	.01580
Stddev	.00033	.00027	.00115	.00110	.00032	.00007	.00299	.00863	.00014	.00011	.00038	.00035
%RSD	2.9118	.21652	5.6916	1.0414	3.2303	6.7600	2.5511	4.0906	2.6772	1.0306	3.7067	2.2187

#1	.01096	.12510	.01942	.10533	.00954	.00103	.11527	.20495	.00525	.01104	.00993	.01556
#2	.01142	.12548	.02105	.10689	.00999	.00094	.11951	.21716	.00545	.01088	.01046	.01605

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass								
Value			.01500									
Range			30.000%									

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10232	3.2798	F .01309	.22737	.01100	.01948	1.1718	.04433	3.1658	.00885	.00499	.00894
Stddev	.00495	.0093	.00296	.00307	.00010	.00024	.0012	.00008	.0516	.00100	.00028	.00072
%RSD	4.8380	.28266	22.633	1.3492	.91221	1.2370	.10295	.18898	1.6311	11.320	5.6592	8.0836

#1	.09882	3.2732	.01100	.22520	.01107	.01930	1.1709	.04439	3.1293	.00814	.00519	.00945
#2	.10582	3.2863	.01519	.22954	.01093	.01965	1.1726	.04427	3.2023	.00956	.00479	.00843

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass						
Value			.01000									
Range			30.000%									

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01414	.51531	1.1028	.10168	.01043	.01387	.01016	.01750	F .08452	.01112	.02400	.01344
Stddev	.00131	.00442	.0095	.00033	.00004	.00045	.00015	.00090	.00446	.00029	.00050	.00182
%RSD	9.2622	.85713	.85713	.32146	.39033	3.2579	1.4930	5.1292	5.2804	2.6498	2.0723	13.517

#1	.01321	.51218	1.0961	.10145	.01041	.01355	.01006	.01687	.08767	.01133	.02365	.01472
#2	.01506	.51843	1.1094	.10191	.01046	.01419	.01027	.01814	.08136	.01091	.02436	.01215

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass							
Value									.06000			
Range									30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5041.6	62804.	7185.1
Stddev	6.4	14.	8.2
%RSD	.12619	.02239	.11478

#1	5037.1	62795.	7190.9
#2	5046.1	62814.	7179.3

Sample Name: 280-70378-a-5-a Acquired: 6/16/2015 17:06:13 Type: Unk
 Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment: 280863 6010B S

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00028	110.82	.04557	.08263	1.0901	.00581	-.00534	33.120	.00270
Stddev	.00029	.18	.00055	.00037	.0004	.00001	.00259	.029	.00002
%RSD	103.31	.16226	1.2155	.44793	.04075	.20442	48.476	.08609	.83882

#1	.00008	110.69	.04518	.08289	1.0898	.00581	-.00351	33.100	.00269
#2	.00048	110.94	.04597	.08237	1.0905	.00580	-.00717	33.140	.00272

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05514	W .18495	.22310	141.56	32.442	.13505	35.627	1.6939	.00142
Stddev	.00043	.00008	.00135	.11	.026	.00238	.035	.0008	.00001
%RSD	.77827	.04182	.60420	.07807	.08143	1.7628	.09946	.04991	.36077

#1	.05484	.18490	.22406	141.64	32.423	.13336	35.652	1.6933	.00142
#2	.05544	.18501	.22215	141.49	32.460	.13673	35.602	1.6945	.00142

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.7662	.12820	W 5.6439	.36171	1.1461	-.00228	.00770	1.6982	3.6340
Stddev	.0087	.00023	.0012	.00169	.0019	.00303	.00113	.0097	.0209
%RSD	.49436	.17698	.02091	.46683	.17054	132.52	14.682	.57383	.57383

#1	1.7724	.12836	5.6447	.36052	1.1475	-.00443	.00690	1.6913	3.6193
#2	1.7600	.12804	5.6430	.36290	1.1447	-.00014	.00850	1.7050	3.6488

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02152	.36738	.13197	2.3559	.00840	W -.08434	.28168	.72858	.06595
Stddev	.00095	.00078	.00053	.0004	.00162	.02408	.00036	.00005	.00135
%RSD	4.3999	.21128	.40021	.01826	19.348	28.549	.12813	.00626	2.0428

#1	.02085	.36683	.13160	2.3556	.00725	-.06732	.28193	.72855	.06690
#2	.02219	.36793	.13235	2.3562	.00955	-.10137	.28142	.72861	.06499

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	5285.3	66309.	7888.7
Stddev	3.4	220.	57.3
%RSD	.06446	.33207	.72686

#1	5287.7	66465.	7848.1
#2	5282.9	66154.	7929.2

Sample Name: 280-70378-b-6-a Acquired: 6/16/2015 17:08:43 Type: Unk
 Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment: 280863 6010B S

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00037	135.40	.05401	.07739	1.6359	.00724	-.01313	206.50	.00250
Stddev	.00015	.30	.00004	.00144	.0028	.00002	.00004	2.28	.00001
%RSD	39.594	.22370	.07708	1.8576	.17003	.28392	.26785	1.1057	.27656

#1	.00048	135.19	.05404	.07637	1.6379	.00725	-.01316	208.11	.00251
#2	.00027	135.62	.05398	.07840	1.6339	.00722	-.01311	204.89	.00250

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06353	W .23858	.18136	207.78	33.941	.20951	52.468	4.2384	.00560
Stddev	.00055	.00345	.00096	.51	.149	.00028	.063	.0184	.00018
%RSD	.86842	1.4480	.52826	.24366	.43816	.13316	.11958	.43480	3.2385

#1	.06314	.23614	.18068	207.43	33.836	.20931	52.424	4.2254	.00573
#2	.06392	.24102	.18203	208.14	34.046	.20971	52.512	4.2514	.00547

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0474	.12745	W 5.8268	.12824	2.3239	-.00554	.01798	1.6240	3.4753
Stddev	.0111	.00066	.0457	.00313	.0180	.00177	.00232	.0031	.0066
%RSD	.54265	.51876	.78472	2.4407	.77555	32.007	12.907	.18965	.18965

#1	2.0552	.12699	5.7944	.12603	2.3111	-.00680	.01633	1.6262	3.4800
#2	2.0395	.12792	5.8591	.13045	2.3366	-.00429	.01962	1.6218	3.4706

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01591	1.2605	.15842	3.8512	.01490	W -.07547	.38652	.54596	.07629
Stddev	.00006	.0023	.00145	.0058	.00143	.02017	.00040	.00352	.00009
%RSD	.35578	.17916	.91802	.14959	9.6189	26.725	.10475	.64448	.11656

#1	.01595	1.2621	.15944	3.8471	.01388	-.06120	.38624	.54347	.07623
#2	.01587	1.2589	.15739	3.8552	.01591	-.08973	.38681	.54845	.07635

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	5251.8	65625.	8142.2
Stddev	3.0	15.	46.7
%RSD	.05658	.02296	.57331

#1	5253.9	65614.	8109.2
#2	5249.7	65636.	8175.2

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00039	71.663	.05001	.08104	.95214	.00381	-.00601	82.093	.00218
Stddev	.00017	.161	.00030	.00042	.00136	.00009	.00235	.205	.00014
%RSD	42.585	.22472	.59703	.51448	.14291	2.3175	39.039	.25001	6.2770

#1	.00051	71.777	.04979	.08075	.95118	.00375	-.00767	81.948	.00209
#2	.00027	71.549	.05022	.08134	.95311	.00388	-.00435	82.238	.00228

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04099	W .12827	.12898	107.23	20.373	.10105	33.976	1.4125	-.00123
Stddev	.00003	.00075	.00019	.45	.032	.00075	.058	.0006	.00046
%RSD	.07741	.58100	.15067	.41565	.15866	.74077	.17106	.04359	37.788

#1	.04101	.12775	.12884	106.91	20.351	.10053	34.017	1.4130	-.00155
#2	.04097	.12880	.12911	107.54	20.396	.10158	33.935	1.4121	-.00090

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.3736	.08376	W 6.3380	.32411	1.1235	-.00520	.01315	1.5955	3.4144
Stddev	.0144	.00028	.0490	.00044	.0060	.00014	.00070	.0395	.0845
%RSD	1.0478	.33801	.77367	.13498	.53797	2.7705	5.3563	2.4743	2.4743

#1	1.3634	.08356	6.3033	.32381	1.1193	-.00510	.01265	1.5676	3.3547
#2	1.3838	.08396	6.3727	.32442	1.1278	-.00531	.01365	1.6234	3.4742

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02813	.56462	.11800	1.4143	.00984	W -.06586	.21501	.42311	.05050
Stddev	.00095	.00119	.00026	.0015	.00128	.00998	.00036	.00204	.00058
%RSD	3.3633	.21088	.22161	.10750	13.025	15.149	.16686	.48280	1.1469

#1	.02746	.56378	.11782	1.4153	.01075	-.07291	.21526	.42167	.05009
#2	.02879	.56546	.11819	1.4132	.00893	-.05880	.21475	.42456	.05091

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	5193.8	65340.	7873.5
Stddev	.6	246.	25.6
%RSD	.01170	.37641	.32549

#1	5193.4	65514.	7855.4
#2	5194.3	65166.	7891.7

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00099	92.964	.05901	.25626	1.9688	.00528	-.00886	162.12	.00293
Stddev	.00004	.088	.00153	.00176	.0014	.00006	.00201	.91	.00016
%RSD	4.0416	.09483	2.5845	.68514	.07092	1.2302	22.744	.55868	5.5133

#1	.00096	93.027	.06009	.25750	1.9678	.00524	-.00743	162.76	.0305
#2	.00102	92.902	.05794	.25502	1.9698	.00533	-.01028	161.48	.00282

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.07367	W .13595	.24053	134.44	21.091	.11864	37.761	2.9672	-.00003
Stddev	.00099	.00102	.00032	.28	.019	.00011	.009	.0318	.00015
%RSD	1.3493	.75020	.13225	.20623	.09055	.09449	.02441	1.0727	486.16

#1	.07437	.13667	.24030	134.24	21.078	.11856	37.768	2.9897	-.00014
#2	.07297	.13523	.24075	134.63	21.105	.11872	37.755	2.9447	.00008

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.7891	.09980	W 5.5370	.86797	1.9284	-.00624	.01318	2.2837	4.8870
Stddev	.0171	.00037	.0226	.00575	.0104	.00040	.00086	.0337	.0721
%RSD	.35698	.36916	.40721	.66303	.53979	6.3685	6.5524	1.4743	1.4743

#1	4.7770	.10006	5.5210	.86390	1.9357	-.00596	.01257	2.2598	4.8361
#2	4.8012	.09954	5.5529	.87204	1.9210	-.00652	.01380	2.3075	4.9380

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02369	.94328	.11534	1.7712	.01166	-.04264	.25291	2.1213	.06919
Stddev	.00064	.00040	.00091	.0020	.00035	.01041	.00043	.0005	.00268
%RSD	2.7061	.04190	.78876	.11454	3.0177	24.419	.16812	.02512	3.8728

#1	.02324	.94300	.11469	1.7726	.01141	-.03528	.25321	2.1217	.06729
#2	.02414	.94356	.11598	1.7697	.01191	-.05001	.25260	2.1210	.07108

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	5099.4	64275.	7813.5
Stddev	5.8	108.	60.7
%RSD	.11467	.16803	.77653

#1	5103.5	64198.	7770.6
#2	5095.2	64351.	7856.4

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00091	81.741	.09624	.08950	1.3518	.00458	-.00428	119.48	.00902
Stddev	.00020	.130	.00120	.00030	.0012	.00004	.00211	.19	.00012
%RSD	21.885	.15891	1.2449	.33465	.08866	.84548	49.326	.16246	1.3051

#1	.00077	81.650	.09709	.08929	1.3509	.00455	-.00279	119.35	.00911
#2	.00105	81.833	.09540	.08971	1.3526	.00460	-.00578	119.62	.00894

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04771	W .13545	1.6567	117.88	20.913	.10689	30.559	1.8946	.00122
Stddev	.00010	.00023	.0058	.23	.007	.00163	.015	.0012	.00012
%RSD	.20383	.17311	.34933	.19793	.03149	1.5236	.04810	.06253	10.208

#1	.04778	.13561	1.6526	118.05	20.909	.10574	30.549	1.8938	.00113
#2	.04765	.13528	1.6608	117.72	20.918	.10804	30.569	1.8954	.00131

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.7554	.10383	W 6.2104	.74198	1.7225	-.00170	.01672	1.5016	3.2133
Stddev	.0034	.00045	.0298	.00562	.0075	.00185	.00406	.0052	.0111
%RSD	.05032	.43413	.48033	.75792	.43613	108.32	24.262	.34479	.34479

#1	6.7530	.10415	6.2315	.74596	1.7278	-.00040	.01385	1.4979	3.2055
#2	6.7578	.10352	6.1893	.73801	1.7172	-.00301	.01959	1.5052	3.2212

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03095	.89013	.09178	1.3831	.01119	W -.06229	.22369	3.2464	.05291
Stddev	.00022	.00133	.00120	.0016	.00152	.02219	.00039	.0034	.00041
%RSD	.70339	.14988	1.3060	.11693	13.563	35.626	.17269	.10427	.77812

#1	.03080	.88919	.09094	1.3820	.01226	-.04660	.22342	3.2488	.05320
#2	.03111	.89107	.09263	1.3843	.01011	-.07799	.22396	3.2440	.05262

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	5145.4	64542.	7753.8
Stddev	12.5	165.	18.9
%RSD	.24295	.25592	.24376

#1	5136.5	64425.	7767.2
#2	5154.2	64659.	7740.4

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00044	84.572	.07270	.09785	1.8159	.00560	-.00448	157.34	.00510
Stddev	.00033	.002	.00030	.00051	.0026	.00002	.00139	.06	.00018
%RSD	73.929	.00290	.41600	.52130	.14374	.37560	30.987	.03648	3.5684

#1	.00021	84.573	.07248	.09821	1.8177	.00561	-.00547	157.38	.00523
#2	.00067	84.570	.07291	.09749	1.8140	.00558	-.00350	157.30	.00497

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04514	W .12172	.20101	121.22	19.588	.12186	33.143	1.8870	.00024
Stddev	.00106	.00242	.00097	.06	.050	.00058	.129	.0055	.00011
%RSD	2.3565	1.9871	.48112	.05263	.25275	.47286	.38980	.28867	44.210

#1	.04589	.12343	.20169	121.27	19.623	.12227	33.052	1.8832	.00017
#2	.04439	.12001	.20032	121.18	19.553	.12145	33.234	1.8909	.00032

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.7185	.10216	W 5.1835	.27638	2.5734	-.00308	.01313	1.5822	3.3858
Stddev	.0241	.00181	.0874	.00693	.0430	.00074	.00088	.0009	.0020
%RSD	.51155	1.7671	1.6863	2.5066	1.6727	24.148	6.7042	.05775	.05775

#1	4.7015	.10343	5.2454	.28128	2.6039	-.00256	.01375	1.5828	3.3872
#2	4.7356	.10088	5.1217	.27148	2.5430	-.00361	.01251	1.5815	3.3844

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01862	1.0580	.09833	1.3965	.01262	W -.05573	.23768	2.3007	.07526
Stddev	.00140	.0020	.00056	.0041	.00008	.02324	.00070	.0111	.00026
%RSD	7.5446	.19284	.56491	.29157	.61318	41.701	.29553	.48419	.35175

#1	.01961	1.0594	.09872	1.3936	.01267	-.07216	.23718	2.2929	.07507
#2	.01763	1.0566	.09793	1.3994	.01256	-.03930	.23817	2.3086	.07545

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	5159.0	64970.	7779.9
Stddev	9.8	256.	9.0
%RSD	.18946	.39467	.11620

#1	5152.1	65151.	7773.5
#2	5165.9	64789.	7786.2

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00095	48.662	.00460	.00192	.00016	.00020	.99161	.00452	.00016	-.00115	.00049
Stddev	.00029	.108	.00159	.00035	.00001	.00000	.00273	.00509	.00004	.00006	.00000
%RSD	30.105	.22096	34.547	18.426	8.3378	.37802	.27577	112.41	23.614	5.6072	.18078

#1	.00075	48.586	.00348	.00217	.00017	.00019	.98968	.00812	.00014	-.00111	.00049
#2	.00116	48.739	.00572	.00167	.00015	.00020	.99355	.00093	.00019	-.00120	.00049

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00582	47.127	.33840	.00713	.00365	-.00216	-.00038	245.87	.00201	.00747	.00192
Stddev	.00007	.691	.02807	.00063	.00018	.00007	.00018	1.40	.00026	.00156	.00087
%RSD	1.2123	1.4653	8.2957	8.8438	4.8633	3.4607	46.521	.57023	12.895	20.836	45.112

#1	.00577	46.638	.35825	.00668	.00377	-.00211	-.00026	244.88	.00182	.00857	.00131
#2	.00587	47.615	.31855	.00758	.00352	-.00222	-.00051	246.86	.00219	.00637	.00253

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.7740	-.00209	-.00332	-.01109	-.02374	-.00674	.00043	4.9017	-.00125	.00088	W 10.550
Stddev	.0283	.00169	.00227	.00876	.01875	.00031	.00010	.0166	.00032	.00006	.020
%RSD	.59237	80.526	68.425	78.998	78.998	4.5417	22.723	.33910	25.548	6.9631	.19237

#1	4.7940	-.00329	-.00171	-.01729	-.03700	-.00696	.00050	4.8899	-.00102	.00084	10.564
#2	4.7540	-.00090	-.00492	-.00490	-.01048	-.00652	.00036	4.9134	-.00147	.00093	10.535

Check ?	Chk Pass	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value											10.000
Range											5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00310	.00103	.00831
Stddev	.00067	.00017	.00133
%RSD	21.678	16.724	16.050

#1	.00262	.00091	.00736
#2	.00357	.00116	.00925

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4777.4	59785.	7028.2
Stddev	11.5	167.	10.9
%RSD	.24047	.27967	.15517

#1	4785.6	59667.	7036.0
#2	4769.3	59904.	7020.5

Sample Name: CCV-3333645 Acquired: 6/16/2015 17:23:57 Type: QC

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52353	F .56492	.99941	.50972	.49916	.48230	-.00018	4.8315	.50128	.50860	.48920	.50808
Stddev	.00015	.00060	.00406	.00087	.00072	.00160	.00018	.0066	.00173	.00165	.00216	.00002
%RSD	.02949	.10654	.40626	.17035	.14462	.33190	98.394	.13739	.34513	.32439	.44245	.00459

#1	.52342	.56534	1.0023	.50911	.49865	.48117	-.00005	4.8269	.50250	.50977	.49073	.50809
#2	.52363	.56449	.99654	.51034	.49968	.48343	-.00030	4.8362	.50005	.50743	.48767	.50806

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass				
Value		.50000										
Range		10.490%										

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.4266	50.943	1.0208	20.739	.51266	.49659	5.1862	.52264	1.0457	1.0539	.01088	1.0240
Stddev	.0066	.209	.0034	.026	.00036	.00026	.0127	.00025	.0032	.0084	.00027	.0195
%RSD	.27123	.41076	.33584	.12483	.06953	.05230	.24586	.04784	.30559	.79963	2.5140	1.9025

#1	2.4219	50.795	1.0184	20.757	.51291	.49678	5.1952	.52247	1.0435	1.0479	.01069	1.0102
#2	2.4312	51.091	1.0232	20.721	.51240	.49641	5.1772	.52282	1.0480	1.0598	.01108	1.0377

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0143	4.8379	10.353	.99579	.49694	-.00248	.51119	1.0180	.00589	.52129	.50791	.50721
Stddev	.0190	.0112	.024	.02128	.00055	.00056	.00060	.0173	.00997	.00576	.00057	.00383
%RSD	1.8758	.23189	.23189	2.1372	.11088	22.492	.11764	1.6987	169.23	1.1051	.11241	.75421

#1	1.0008	4.8458	10.370	.98074	.49655	-.00209	.51162	1.0057	-.00116	.51722	.50831	.50451
#2	1.0277	4.8300	10.336	1.0108	.49733	-.00288	.51076	1.0302	.01294	.52537	.50751	.50992

Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass				
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4879.6	61064.	7067.1
Stddev	4.3	178.	2.1
%RSD	.08912	.29172	.03000

#1	4882.7	60938.	7065.6
#2	4876.5	61190.	7068.6

Sample Name: CCB Acquired: 6/16/2015 17:26:23 Type: QC
 Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00007	.00023	.00278	-.00041	-.00035	.00002	.00560	-.00474	-.00037	.00035	-.00015	-.00069	-.00182
Stddev	.00026	.00030	.00122	.00018	.00011	.00003	.00011	.00109	.00013	.00016	.00008	.00012	.00123
%RSD	366.02	132.60	43.898	44.187	31.555	149.72	1.9864	23.102	35.828	45.902	49.122	17.510	67.483

#1	-.00011	.00044	.00192	-.00054	-.00043	.00004	.00568	-.00551	-.00047	.00024	-.00021	-.00060	-.00095
#2	.00026	.00001	.00365	-.00028	-.00028	.00000	.00552	-.00396	-.00028	.00047	-.00010	-.00077	-.00269

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.26760	.00526	.00313	-.00006	-.00032	.10181	.00031	-.00043	.00050	.00431	-.00182	-.00021	.00849
Stddev	.04586	.00248	.00316	.00005	.00003	.00872	.00022	.00016	.00034	.00086	.00037	.00208	.01451
%RSD	17.138	47.238	100.94	83.339	8.6513	8.5695	69.128	37.869	66.861	19.889	20.572	972.51	171.02

#1	.23517	.00702	.00090	-.00003	-.00030	.09564	.00047	-.00054	.00027	.00492	-.00155	.00125	-.00178
#2	.30003	.00350	.00537	-.00010	-.00034	.10798	.00016	-.00031	.00074	.00371	-.00208	-.00168	.01875

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01816	-.00013	.00002	.00071	-.00046	.00030	-.00689	-.00004	-.00005	-.00102
Stddev	.03106	.00012	.00006	.00020	.00044	.00001	.03392	.00042	.00042	.00090
%RSD	171.02	91.275	237.41	27.942	95.273	2.0435	492.52	971.24	864.56	88.760

#1	-.00380	-.00022	-.00002	.00057	-.00077	.00031	-.03087	.00026	.00025	-.00165
#2	.04012	-.00005	.00007	.00085	-.00015	.00030	.01710	-.00034	-.00035	-.00038

Check ?	Chk Pass									
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4988.8	62978.	7094.0
Stddev	20.7	268.	39.6
%RSD	.41485	.42497	.55818

#1	5003.5	63167.	7066.0
#2	4974.2	62789.	7122.0

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01065	.12067	F .02175	.10491	.01000	.00101	.11422	.21568	.00510	.01100	.01017	.01531
Stddev	.00025	.00034	.00341	.00045	.00016	.00009	.00344	.00157	.00016	.00010	.00014	.00053
%RSD	2.3925	.28030	15.686	.42683	1.6460	8.7695	3.0144	.72617	3.1317	.88398	1.3878	3.4663

#1	.01083	.12091	.02416	.10459	.01012	.00095	.11665	.21678	.00499	.01107	.01007	.01493
#2	.01047	.12043	.01934	.10522	.00988	.00107	.11178	.21457	.00521	.01093	.01027	.01568

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass								
Value			.01500									
Range			30.000%									

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10155	3.4625	F .01613	.22462	.01073	.01923	1.1633	.04455	3.1410	.01017	.00642	.00798
Stddev	.00065	.0327	.00000	.00597	.00007	.00008	.0086	.00013	.0278	.00165	.00062	.00016
%RSD	.64317	.94560	.02980	2.6561	.61509	.43440	.73569	.30104	.88520	16.217	9.6266	1.9887

#1	.10201	3.4393	.01613	.22883	.01068	.01917	1.1573	.04446	3.1606	.01133	.00598	.00809
#2	.10109	3.4856	.01612	.22040	.01078	.01929	1.1694	.04465	3.1213	.00900	.00685	.00787

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass						
Value			.01000									
Range			30.000%									

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01492	.50043	1.0709	.10035	.01056	.01448	.01041	.01487	.06436	.01059	.02408	.01319
Stddev	.00101	.01340	.0287	.00187	.00008	.00114	.00031	.00040	.03233	.00009	.00006	.00201
%RSD	6.7604	2.6771	2.6771	1.8608	.79153	7.8906	2.9966	2.7090	50.228	.82150	.26576	15.197

#1	.01563	.50990	1.0912	.10167	.01062	.01367	.01019	.01459	.08722	.01053	.02404	.01461
#2	.01420	.49096	1.0506	.09903	.01050	.01529	.01063	.01516	.04150	.01065	.02413	.01178

Check ?	Chk Pass											
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4995.9	62950.	7133.4
Stddev	.3	405.	67.2
%RSD	.00679	.64262	.94253

#1	4996.1	62664.	7180.9
#2	4995.7	63237.	7085.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00001	.00375	.00990	.10727	.03093	.00003	.00224	36.507	.00003
Stddev	.00045	.00008	.00114	.00086	.00022	.00008	.00014	.131	.00016
%RSD	4869.3	2.1452	11.491	.79835	.71764	271.36	6.4471	.36011	560.83

#1	.00033	.00369	.01071	.10666	.03109	-.00003	.00235	36.414	-.00008
#2	-.00031	.00381	.00910	.10787	.03077	.00009	.00214	36.600	.00014

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02087	-.00019	.00023	4.3555	.42322	.00660	4.2238	5.3944	-.00365
Stddev	.00007	.00019	.00014	.0310	.01075	.00152	.0039	.0028	.00030
%RSD	.33849	99.848	62.056	.71270	2.5390	23.081	.09337	.05158	8.2098

#1	.02092	-.00006	.00034	4.3335	.43082	.00552	4.2266	5.3924	-.00344
#2	.02082	-.00033	.00013	4.3774	.41562	.00768	4.2210	5.3963	-.00386

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	589.592 {57}	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 10.534	W 10.828	.01587	.15684	F -.00600	11.637	-.00483	.00716	1.5369
Stddev	.075	.031	.00024	.00184	.00030	.024	.00075	.00195	.0265
%RSD	.71014	.28372	1.5079	1.1720	5.0147	.20925	15.590	27.202	1.7236

#1	10.481	10.806	.01604	.15554	-.00621	11.620	-.00536	.00578	1.5182
#2	10.587	10.850	.01570	.15814	-.00579	11.655	-.00429	.00854	1.5556

Check ?	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500	500.00			200.00				
Low Limit	-50000	11.000			-00600				

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.2889	-.00063	.08584	-.00026	-.00076	.00628	-.00297	.00025	.00809
Stddev	.0567	.00063	.00042	.00126	.00004	.00058	.03565	.00052	.00013
%RSD	1.7236	100.37	.48989	489.17	4.8614	9.2902	1201.4	207.41	1.6328

#1	3.2488	-.00018	.08555	-.00115	-.00079	.00669	.02224	.00061	.00800
#2	3.3290	-.00107	.08614	.00063	-.00074	.00587	-.02818	-.00012	.00818

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 {99}
Units	ppm
Avg	-.00171
Stddev	.00095
%RSD	55.435

#1	-.00239
#2	-.00104

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-69179-c-4-b@5 Acquired: 6/16/2015 17:31:22 Type: Unk

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: 6/12 Custom ID2: Custom ID3:

Comment: 281521 6010B

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	4948.4	61784.	7094.9
Stddev	10.4	5.	61.9
%RSD	.20934	.00761	.87244
#1	4941.1	61780.	7138.7
#2	4955.7	61787.	7051.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00026	.04810	.00255	.03243	.00109	.00001	.00149	F .23078	-.00016
Stddev	.00005	.00013	.00030	.00015	.00024	.00002	.00077	.00092	.00019
%RSD	19.253	.27396	11.671	.45753	21.624	129.44	51.767	.39990	120.63

#1	.00023	.04819	.00276	.03233	.00126	.00002	.00204	.23012	-.00029
#2	.00030	.04801	.00234	.03254	.00093	.00000	.00095	.23143	-.00002

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit								.20000	
Low Limit								-.20000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00013	.00081	.00061	.02957	.26047	W .00542	W .13352	.00050	-.00065
Stddev	.00025	.00015	.00006	.00228	.06638	.00144	.00058	.00001	.00031
%RSD	184.61	18.567	10.303	7.7104	25.484	26.536	.43479	2.9336	47.893

#1	-.00031	.00070	.00056	.02796	.21353	.00440	.13393	.00051	-.00043
#2	.00004	.00092	.00065	.03119	.30741	.00644	.13311	.00049	-.00087

Check ?	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass				
High Limit						.00500	.10000		
Low Limit						-.00500	-.10000		

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.23864	.00093	.01209	.00141	.01494	.00085	.00219	.14489	.31007
Stddev	.00421	.00016	.00053	.00010	.00052	.00159	.00592	.00552	.01182
%RSD	1.7633	17.691	4.4099	6.7680	3.4811	186.74	270.42	3.8114	3.8114

#1	.24162	.00081	.01171	.00135	.01457	-.00027	-.00200	.14880	.31842
#2	.23567	.00104	.01247	.00148	.01531	.00197	.00638	.14099	.30171

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00775	.00064	.00001	.00031	-.00007	-.00402	-.00031	.00428	-.00191
Stddev	.00036	.00008	.00125	.00043	.00018	.02095	.00042	.00005	.00093
%RSD	4.6304	11.991	8840.4	139.98	253.01	521.00	137.71	1.2704	48.783

#1	.00749	.00070	-.00087	.00000	.00005	.01079	-.00061	.00425	-.00257
#2	.00800	.00059	.00090	.00061	-.00019	-.01884	-.00001	.00432	-.00125

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4982.6	62786.	7132.7
Stddev	1.2	405.	25.7
%RSD	.02365	.64562	.36095

#1	4981.8	62499.	7150.9
#2	4983.5	63072.	7114.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05215	2.1327	.95877	F 1.1727	1.9335	.04690	1.9631	46.637	.09690
Stddev	.00009	.0019	.00422	.0015	.0071	.00033	.0012	.110	.00048
%RSD	.17668	.09046	.44065	.13237	.36730	.70704	.06278	.23582	.49949

#1	.05209	2.1314	.96176	1.1738	1.9385	.04714	1.9623	46.715	.09724
#2	.05222	2.1341	.95579	1.1716	1.9285	.04667	1.9640	46.559	.09656

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
High Limit				1.1000					
Low Limit				.81000					

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48815	F .19064	.25020	.95002	49.787	.98530	50.097	.49481	.96852
Stddev	.00359	.00026	.00101	.00611	.032	.00168	.014	.00082	.00041
%RSD	.73555	.13754	.40237	.64314	.06456	.17035	.02815	.16593	.04259

#1	.49069	.19045	.24949	.95434	49.810	.98649	50.107	.49423	.96823
#2	.48561	.19082	.25091	.94570	49.765	.98412	50.087	.49539	.96881

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05700							
Low Limit		.04350							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.186	.49054	10.281	.48400	1.8371	.48694	1.9288	2.5291	5.4123
Stddev	.258	.00054	.001	.00249	.0015	.00208	.0040	.0228	.0488
%RSD	.51419	.11062	.00963	.51509	.08081	.42752	.20925	.90177	.90177

#1	50.369	.49016	10.281	.48577	1.8381	.48547	1.9259	2.5452	5.4468
#2	50.004	.49093	10.282	.48224	1.8360	.48841	1.9317	2.5130	5.3778

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.8759	.96412	.94808	.99977	1.8803	2.0045	.50518	.48083	.48657
Stddev	.0088	.00331	.00007	.00064	.0119	.0012	.00051	.00020	.00204
%RSD	.46938	.34343	.00768	.06446	.63245	.06189	.10111	.04159	.41876

#1	1.8697	.96646	.94814	.99931	1.8719	2.0036	.50554	.48097	.48801
#2	1.8821	.96177	.94803	1.0002	1.8887	2.0053	.50482	.48069	.48513

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4787.0	59811.	7114.5
Stddev	11.8	269.	5.8
%RSD	.24745	.45050	.08195

#1	4795.4	59621.	7118.6
#2	4778.6	60002.	7110.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00041	1.3190	.01230	.00736	.01866	.00007	-.00112	99.185	.00015
Stddev	.00017	.0020	.00080	.00013	.00024	.00003	.00251	.325	.00022
%RSD	41.830	.14840	6.5089	1.7211	1.2600	48.650	224.56	.32817	151.59

#1	.00029	1.3176	.01287	.00727	.01882	.00004	-.00289	99.415	-.00001
#2	.00054	1.3203	.01174	.00745	.01849	.00009	.00066	98.954	.00030

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00029	.01766	.01318	2.1518	1.0488	.00664	.91914	.02614	-.00223
Stddev	.00004	.00015	.00009	.0129	.0232	.00072	.00145	.00026	.00025
%RSD	12.213	.86528	.71011	.59725	2.2145	10.889	.15786	1.0127	11.227

#1	.00026	.01755	.01325	2.1609	1.0652	.00613	.91811	.02633	-.00240
#2	.00031	.01777	.01311	2.1428	1.0324	.00715	.92016	.02595	-.00205

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.6198	.00238	1.1524	.02134	1.3938	-.00589	.00811	.78224	1.6740
Stddev	.0102	.00031	.0127	.00245	.0095	.00218	.00355	.02088	.0447
%RSD	.38800	12.841	1.1034	11.462	.68032	37.023	43.793	2.6693	2.6693

#1	2.6270	.00259	1.1434	.02306	1.3871	-.00743	.00560	.76747	1.6424
#2	2.6126	.00216	1.1614	.01961	1.4005	-.00435	.01062	.79700	1.7056

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00680	.53246	.00098	.04460	.00842	.00074	.00516	.03862	.00046
Stddev	.00031	.00045	.00062	.00064	.00095	.00967	.00053	.00017	.00083
%RSD	4.5933	.08385	63.227	1.4287	11.343	1304.2	10.286	.43650	180.06

#1	.00658	.53278	.00054	.04505	.00774	-.00609	.00553	.03874	.00105
#2	.00702	.53215	.00142	.04415	.00909	.00758	.00478	.03850	-.00013

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4910.1	61973.	7302.2
Stddev	8.6	383.	62.3
%RSD	.17598	.61736	.85304

#1	4916.2	61702.	7258.2
#2	4904.0	62243.	7346.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0010	.28215	.00796	.00102	.00327	.00003	.00333	20.008	-0.00032
Stddev	.00008	.00242	.00090	.00011	.00009	.00003	.00011	.041	.00003
%RSD	82.721	.85832	11.280	10.685	2.8193	82.933	3.3414	.20549	10.037

#1	-0.0016	.28387	.00860	.00094	.00321	.00005	.00326	20.037	-0.00030
#2	-0.0004	.28044	.00733	.00110	.00334	.00001	.00341	19.979	-0.00034

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00015	.00336	.00197	.44101	.33899	.00309	.19244	.00537	-0.0184
Stddev	.00008	.00002	.00021	.00263	.02790	.00380	.00363	.00003	.00029
%RSD	55.187	.72711	10.608	.59557	8.2291	122.78	1.8881	.60893	15.644

#1	.00021	.00334	.00212	.43916	.31926	.00041	.18987	.00539	-0.0164
#2	.00009	.00337	.00182	.44287	.35871	.00578	.19501	.00535	-0.0205

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.59241	.00067	.23124	.00310	.28274	-.00249	.00281	.14842	.31761
Stddev	.00246	.00008	.00071	.00010	.00101	.00107	.00137	.01299	.02780
%RSD	.41472	12.064	.30844	3.0782	.35710	42.891	48.633	8.7541	8.7541

#1	.59068	.00072	.23175	.00317	.28346	-.00174	.00184	.13923	.29795
#2	.59415	.00061	.23074	.00304	.28203	-.00325	.00378	.15760	.33727

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00085	.10749	-.00076	.00824	.00340	-.01719	.00080	.00880	.00062
Stddev	.00025	.00005	.00032	.00067	.00019	.03457	.00049	.00018	.00019
%RSD	29.624	.04449	42.247	8.1076	5.5344	201.07	60.941	2.0956	30.501

#1	.00103	.10746	-.00099	.00777	.00327	-.04164	.00046	.00893	.00075
#2	.00067	.10752	-.00053	.00871	.00353	.00725	.00115	.00867	.00048

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4991.0	63076.	7211.8
Stddev	6.5	78.	4.0
%RSD	.13099	.12440	.05511

#1	4995.6	63021.	7209.0
#2	4986.4	63132.	7214.6

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05372	5.1436	.98499	1.0102	1.9913	.04806	F 1.9741	146.40	.09856
Stddev	.00037	.0279	.00306	.0002	.0043	.00005	.0013	.53	.00033
%RSD	.69460	.54316	.31073	.01879	.21830	.09795	.06443	.36280	.33772

#1	.05346	5.1634	.98715	1.0104	1.9943	.04809	1.9732	146.78	.09832
#2	.05398	5.1239	.98283	1.0101	1.9882	.04803	1.9750	146.02	.09879

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49168	W .20988	.26821	3.9197	51.453	1.0141	50.719	.52646	.98880
Stddev	.00018	.00024	.00027	.0120	.328	.0046	.004	.00005	.00076
%RSD	.03705	.11509	.10175	.30598	.63756	.45238	.00855	.00970	.07708

#1	.49181	.21005	.26841	3.9282	51.685	1.0173	50.722	.52642	.98826
#2	.49155	.20971	.26802	3.9112	51.221	1.0108	50.716	.52650	.98933

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	52.338	.49242	W 11.020	.51499	3.6204	.48826	1.9711	3.4973	7.4841
Stddev	.247	.00089	.023	.00105	.0041	.00145	.0124	.0420	.0898
%RSD	.47151	.18085	.21084	.20389	.11321	.29717	.62737	1.2005	1.2005

#1	52.512	.49305	11.036	.51573	3.6175	.48723	1.9624	3.5269	7.5476
#2	52.163	.49179	11.003	.51425	3.6233	.48928	1.9799	3.4676	7.4206

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.8981	1.4699	.95539	1.0578	1.8814	2.0623	.51166	.51535	.48662
Stddev	.0135	.0038	.00242	.0018	.0184	.0355	.00094	.00291	.00119
%RSD	.70899	.25847	.25355	.16920	.98035	1.7190	.18311	.56486	.24521

#1	1.8886	1.4726	.95368	1.0591	1.8684	2.0873	.51100	.51329	.48746
#2	1.9076	1.4672	.95710	1.0565	1.8944	2.0372	.51232	.51740	.48578

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4695.0	60055.	7023.7
Stddev	5.9	278.	86.9
%RSD	.12540	.46272	1.2368

#1	4699.1	60252.	6962.3
#2	4690.8	59859.	7085.1

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05331	5.4472	.97782	.99817	1.9869	.04766	F 1.9470	185.88	.09773
Stddev	.00013	.0429	.00050	.00235	.0043	.00008	.0007	.15	.00005
%RSD	.23891	.78697	.05092	.23507	.21897	.16915	.03381	.07931	.05110

#1	.05340	5.4775	.97817	.99982	1.9900	.04761	1.9474	185.98	.09770
#2	.05322	5.4169	.97747	.99651	1.9838	.04772	1.9465	185.77	.09777

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48123	W .20935	.26524	4.0442	51.441	1.0090	50.257	.52450	.98423
Stddev	.00331	.00058	.00002	.0047	.153	.0036	.048	.00112	.00148
%RSD	.68774	.27623	.00865	.11665	.29719	.35824	.09620	.21373	.15070

#1	.48357	.20976	.26526	4.0475	51.549	1.0116	50.291	.52529	.98528
#2	.47889	.20895	.26523	4.0409	51.333	1.0065	50.223	.52371	.98318

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	52.384	.48353	W 10.807	.50670	3.7116	.47786	1.9358	3.7155	7.9513
Stddev	.056	.00477	.009	.00149	.0017	.00137	.0021	.0384	.0821
%RSD	.10723	.98606	.08743	.29315	.04451	.28760	.10622	1.0324	1.0324

#1	52.344	.48690	10.814	.50775	3.7105	.47883	1.9372	3.6884	7.8932
#2	52.424	.48016	10.801	.50565	3.7128	.47689	1.9343	3.7427	8.0093

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.8686	1.6353	.95277	1.0575	1.8521	2.0235	.50773	.51499	.48367
Stddev	.0078	.0040	.00539	.0012	.0070	.0161	.00216	.00278	.00221
%RSD	.42009	.24477	.56600	.11508	.37590	.79571	.42602	.53932	.45754

#1	1.8742	1.6382	.95658	1.0583	1.8571	2.0121	.50926	.51696	.48523
#2	1.8631	1.6325	.94896	1.0566	1.8472	2.0349	.50620	.51303	.48210

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4650.2	59482.	7013.6
Stddev	.4	321.	1.0
%RSD	.00884	.54046	.01442

#1	4649.9	59255.	7012.9
#2	4650.5	59709.	7014.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05225	2.2824	.20598	.11036	.11582	.04738	-.00385	116.21	.05090
Stddev	.00003	.0034	.00168	.00136	.00097	.00025	.00130	.07	.00017
%RSD	.05081	.15050	.81395	1.2314	.83382	.51803	33.808	.06419	.32596

#1	.05223	2.2800	.20479	.10940	.11651	.04756	-.00293	116.26	.05101
#2	.05227	2.2849	.20716	.11132	.11514	.04721	-.00478	116.15	.05078

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05007	.06594	.06366	3.0118	20.994	.10945	20.468	.07423	.04697
Stddev	.00051	.00036	.00016	.0097	.102	.00030	.012	.00001	.00023
%RSD	1.0264	.54366	.25243	.32236	.48387	.27398	.06051	.01590	.50028

#1	.05043	.06619	.06354	3.0186	21.066	.10966	20.459	.07424	.04713
#2	.04971	.06568	.06377	3.0049	20.922	.10924	20.476	.07422	.04680

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.694	.05194	W 3.2726	.11659	1.3840	.09419	.20548	5.4436	11.649
Stddev	.237	.00067	.0264	.00071	.0035	.00071	.00115	.0146	.031
%RSD	1.0455	1.2934	.80797	.61249	.25452	.75824	.55828	.26902	.26902

#1	22.862	.05241	3.2913	.11608	1.3865	.09369	.20467	5.4540	11.671
#2	22.526	.05146	3.2539	.11709	1.3815	.09470	.20629	5.4332	11.627

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10271	.57115	.19000	.09249	.20354	.49974	.05504	.24010	.04962
Stddev	.00088	.00044	.00033	.00043	.00200	.02474	.00001	.00089	.00130
%RSD	.85286	.07760	.17128	.46066	.98298	4.9503	.02668	.37271	2.6163

#1	.10333	.57147	.19023	.09219	.20496	.48224	.05503	.23947	.05054
#2	.10209	.57084	.18977	.09280	.20213	.51723	.05505	.24074	.04870

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4804.1	61194.	7139.3
Stddev	1.4	96.	13.8
%RSD	.02879	.15607	.19313

#1	4805.1	61262.	7149.1
#2	4803.1	61127.	7129.6

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00011	48.345	.00270	.00305	.00016	.00015	1.0104	.01304	.00000	-.00145	.00058
Stddev	.00022	.168	.00019	.00029	.00008	.00009	.0052	.00014	.00012	.00021	.00004
%RSD	210.78	.34795	7.0918	9.3742	49.204	57.243	.51261	1.0412	5830.8	14.726	6.6180

#1	-.00005	48.463	.00283	.00325	.00010	.00021	1.0068	.01294	-.00008	-.00160	.00061
#2	.00026	48.226	.00256	.00285	.00022	.00009	1.0141	.01314	.00009	-.00130	.00055

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00695	47.693	.34530	.00704	.00573	-.00216	-.00055	246.50	.00161	.00525	.00199
Stddev	.00012	.212	.06429	.00186	.00425	.00004	.00010	.36	.00047	.00079	.00078
%RSD	1.6936	.44523	18.617	26.403	74.187	1.7787	18.699	.14705	28.906	15.070	39.048

#1	.00687	47.843	.29985	.00573	.00272	-.00219	-.00063	246.76	.00194	.00581	.00144
#2	.00704	47.543	.39076	.00836	.00873	-.00214	-.00048	246.24	.00128	.00469	.00253

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.8823	-.00136	-.00273	-.02775	-.05939	-.00649	.00036	4.8732	-.00140	.00084	W 10.578
Stddev	.0338	.00063	.00254	.01678	.03590	.00092	.00005	.0044	.00042	.00097	.122
%RSD	.69254	46.226	92.974	60.455	60.455	14.220	12.771	.09065	29.766	115.99	1.1512

#1	4.8584	-.00181	-.00094	-.01589	-.03400	-.00714	.00033	4.8763	-.00111	.00015	10.664
#2	4.9062	-.00092	-.00453	-.03962	-.08478	-.00584	.00040	4.8701	-.00170	.00153	10.492

Check ?	Chk Pass	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value											10.000
Range											5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00312	.00224	.02290
Stddev	.00042	.00045	.00147
%RSD	13.554	20.078	6.4275

#1	.00283	.00256	.02186
#2	.00342	.00192	.02394

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4748.4	60629.	6975.7
Stddev	8.5	203.	16.6
%RSD	.17999	.33549	.23864

#1	4742.3	60485.	6964.0
#2	4754.4	60773.	6987.5

Sample Name: CCV-3333645 Acquired: 6/16/2015 17:53:42 Type: QC

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52276	F .56529	1.0125	.51646	.49956	.48291	-.00235	4.8460	.50659	.50933	.49332	.51319
Stddev	.00071	.00160	.0004	.00210	.00134	.00136	.00101	.0100	.00129	.00047	.00150	.00064
%RSD	.13647	.28304	.03634	.40706	.26820	.28186	43.062	.20704	.25455	.09292	.30496	.12429

#1	.52226	.56643	1.0127	.51794	.50051	.48387	-.00307	4.8531	.50750	.50899	.49439	.51364
#2	.52327	.56416	1.0122	.51497	.49862	.48195	-.00164	4.8389	.50567	.50966	.49226	.51274

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass				
Value		.50000										
Range		10.490%										

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.4108	50.754	1.0017	20.569	.50917	.50164	5.1661	.52192	1.0632	1.0540	.01044	1.0304
Stddev	.0106	.068	.0012	.037	.00023	.00140	.0008	.00134	.0019	.0105	.00015	.0092
%RSD	.44035	.13363	.11586	.17879	.04456	.27832	.01468	.25606	.18031	.99765	1.4089	.88992

#1	2.4033	50.802	1.0025	20.543	.50901	.50263	5.1656	.52286	1.0645	1.0614	.01034	1.0369
#2	2.4183	50.706	1.0008	20.595	.50933	.50065	5.1667	.52097	1.0618	1.0466	.01055	1.0239

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0226	4.7622	10.191	1.0003	.49699	-.00347	.50706	1.0293	-.00445	.50893	.49658	.48739
Stddev	.0088	.0379	.081	.0107	.00044	.00052	.00017	.0094	.04237	.00019	.00275	.00196
%RSD	.86128	.79657	.79657	1.0723	.08791	15.142	.03381	.91053	952.62	.03721	.55379	.40186

#1	1.0288	4.7353	10.134	1.0078	.49730	-.00384	.50718	1.0359	.02551	.50880	.49463	.48601
#2	1.0164	4.7890	10.248	.99268	.49668	-.00309	.50694	1.0227	-.03440	.50907	.49852	.48878

Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass				
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4856.5	62057.	7157.7
Stddev	3.4	235.	5.7
%RSD	.07069	.37890	.07898

#1	4858.9	62223.	7153.7
#2	4854.0	61890.	7161.7

Sample Name: CCB Acquired: 6/16/2015 17:56:07 Type: QC
 Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00023	-.00016	.00322	.00034	-.00056	.00007	.00377	-.00486	-.00023	.00021	.00003	-.00040	-.00392
Stddev	.00057	.00059	.00185	.00069	.00032	.00011	.00054	.00006	.00006	.00023	.00015	.00005	.00139
%RSD	247.92	374.24	57.534	204.15	56.522	169.22	14.388	1.1473	25.620	112.04	435.71	13.092	35.541

#1	.00064	.00026	.00191	.00083	-.00034	.00015	.00416	-.00490	-.00028	.00037	-.00007	-.00036	-.00294
#2	-.00017	-.00057	.00453	-.00015	-.00079	-.00001	.00339	-.00482	-.00019	.00004	.00014	-.00044	-.00491

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.20238	.00442	.00003	-.00004	-.00048	.09350	.00053	-.00015	-.00040	.00627	-.00184	.00000	.00231
Stddev	.01843	.00337	.00575	.00003	.00007	.00059	.00018	.00076	.00126	.00381	.00088	.0030	.01560
%RSD	9.1070	76.359	21244.	63.094	13.850	.63436	34.111	520.24	318.17	60.793	47.982	62493.	675.51

#1	.21541	.00680	.00409	-.00002	-.00053	.09392	.00040	-.00069	-.00129	.00358	-.00121	-.00214	.01334
#2	.18934	.00203	-.00404	-.00006	-.00043	.09308	.00066	.00039	.00049	.00897	-.00246	.00213	-.00872

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00494	-.00103	.00009	-.00308	-.00030	-.00005	.01130	-.00016	.00033	-.00146
Stddev	.03338	.00119	.00008	.00272	.00056	.00062	.04068	.00009	.00035	.00128
%RSD	675.51	115.26	87.115	88.441	185.61	1297.3	359.86	54.797	105.54	87.499

#1	.02855	-.00187	.00015	-.00115	.00009	-.00048	-.01746	-.00023	.00008	-.00236
#2	-.01866	-.00019	.00004	-.00500	-.00070	.00039	.04007	-.00010	.00058	-.00056

Check ?	Chk Pass									
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4938.0	63223.	7103.1
Stddev	.8	241.	42.3
%RSD	.01536	.38096	.59589

#1	4938.6	63393.	7073.1
#2	4937.5	63053.	7133.0

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01134	.12134	.01906	.10677	.00996	.00100	.11745	.21055	.00517	.01112	.01052	.01580
Stddev	.00075	.00009	.00003	.00010	.00002	.00010	.00039	.00019	.00012	.00007	.00052	.00016
%RSD	6.5718	.07014	.16833	.09502	.22859	9.6319	.33044	.09229	2.3222	.64661	4.9741	.99965

#1	.01082	.12140	.01908	.10684	.00994	.00107	.11717	.21068	.00525	.01106	.01090	.01591
#2	.01187	.12127	.01904	.10670	.00998	.00093	.11772	.21041	.00508	.01117	.01015	.01569

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09892	3.3889	.01214	.22765	.01073	.01971	1.1603	.04454	3.2109	.00910	.00646	.00845
Stddev	.00096	.0347	.00264	.00284	.00001	.00007	.0157	.00049	.0089	.00067	.00231	.00013
%RSD	.97321	1.0232	21.755	1.2490	.05431	.34705	1.3535	1.0973	.27802	7.3659	35.782	1.5205

#1	.09960	3.4135	.01401	.22966	.01074	.01967	1.1714	.04488	3.2172	.00863	.00483	.00854
#2	.09824	3.3644	.01027	.22564	.01073	.01976	1.1492	.04419	3.2046	.00958	.00810	.00836

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01828	4.8542	1.0388	.10389	.01037	.01328	.00992	.01718	F .08697	.01059	.02410	.01294
Stddev	.00203	.00537	.0115	.00010	.00000	.00067	.00003	.00040	.00313	.00062	.00106	.00118
%RSD	11.111	1.1058	1.1058	.09979	.03889	5.0538	.32730	2.3437	3.6004	5.8424	4.3821	9.0972

#1	.01684	.48163	1.0307	.10396	.01037	.01281	.00994	.01689	.08919	.01015	.02336	.01377
#2	.01971	.48922	1.0469	.10381	.01037	.01376	.00990	.01746	.08476	.01102	.02485	.01211

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass							
Value									.06000			
Range									30.0000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4971.7	63407.	7119.2
Stddev	10.8	102.	12.0
%RSD	.21763	.16092	.16828

#1	4979.4	63479.	7127.6
#2	4964.1	63335.	7110.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00112	.67760	.02138	1.1191	.04136	-0.00006	-0.00149	481.77	.00096
Stddev	.00004	.00397	.00480	.0041	.00026	.00004	.00163	.09	.00007
%RSD	3.8700	.58521	22.439	.36595	.63094	71.780	109.47	.01839	7.4401

#1	.00109	.68040	.02477	1.1220	.04154	-0.00009	-0.00264	481.71	.00091
#2	.00115	.67480	.01798	1.1162	.04117	-0.00003	-0.00034	481.83	.00101

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00118	-0.00054	.00542	.93668	W 175.95	1.0434	200.76	.05379	-0.00238
Stddev	.00017	.00008	.00005	.00416	.99	.0016	.73	.00015	.00023
%RSD	14.077	14.606	.86497	.44464	.56203	.15403	.36341	.28022	9.5415

#1	-0.00130	-0.00048	.00545	.93963	175.25	1.0422	201.28	.05389	-0.00222
#2	-0.00106	-0.00059	.00538	.93374	176.65	1.0445	200.25	.05368	-0.00254

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					100.00				
Low Limit					-50000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 3329.7	.00165	.12516	F -.01781	F 336.03	-0.00120	.01959	3.4053	7.2873
Stddev	4.3	.00013	.00153	.00052	.27	.00016	.00116	.0260	.0556
%RSD	.13019	7.8312	1.2196	2.8972	.08150	13.727	5.9286	.76237	.76237

#1	3332.7	.00174	.12408	-.01744	336.22	-.00132	.02041	3.3869	7.2480
#2	3326.6	.00156	.12624	-.01817	335.84	-.00108	.01876	3.4236	7.3266

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00			200.00	200.00				
Low Limit	11.000			-.00600	-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00281	1.8375	-0.00300	.02324	.01632	.02581	.00225	.00702	-0.00015
Stddev	.00122	.0013	.00266	.00016	.00066	.04349	.00004	.00029	.00040
%RSD	43.518	.07140	88.841	.69846	4.0300	168.49	1.7919	4.1501	266.98

#1	-0.00195	1.8365	-0.00112	.02312	.01678	-.00494	.00228	.00722	-0.00043
#2	-0.00367	1.8384	-0.00488	.02335	.01585	.05656	.00223	.00681	.00013

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3902.3	48632.	6608.7
Stddev	25.1	35.	11.7
%RSD	.64441	.07229	.17662

#1	3884.5	48607.	6617.0
#2	3920.1	48656.	6600.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00043	.14805	.01132	.24221	.00789	.00001	.00196	100.11	-.00005
Stddev	.00037	.00044	.00211	.00019	.00020	.00003	.00147	.03	.00024
%RSD	84.169	.30011	18.678	.07820	2.5632	231.88	75.123	.02940	471.20

#1	.00069	.14837	.00982	.24234	.00775	-.00001	.00092	100.14	.00012
#2	.00018	.14774	.01281	.24207	.00803	.00003	.00300	100.09	-.00022

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00076	-.00057	.00233	.19130	34.270	.20610	40.981	.01080	-.00427
Stddev	.00005	.00023	.00000	.00311	.002	.00158	.044	.00004	.00008
%RSD	6.3563	39.746	.18829	1.6271	.00447	.76750	.10638	.39585	1.9198

#1	-.00080	-.00041	.00232	.18910	34.269	.20498	41.012	.01077	-.00433
#2	-.00073	-.00073	.00233	.19350	34.271	.20722	40.951	.01083	-.00422

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 651.64	.00044	.02675	F -.01137	65.947	-.00768	.00926	.64809	1.3869
Stddev	.17	.00009	.00027	.00118	.023	.00067	.00050	.01039	.0222
%RSD	.02617	20.886	1.0070	10.377	.03459	8.6994	5.3547	1.6037	1.6037

#1	651.52	.00037	.02656	-.01053	65.931	-.00721	.00891	.65544	1.4026
#2	651.76	.00050	.02694	-.01220	65.963	-.00815	.00961	.64074	1.3712

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Fail	Chk Pass				
High Limit	500.00			200.00					
Low Limit	11.000			-.00600					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00148	.36335	-.00233	.00375	.01037	-.01491	-.00098	.00213	.00087
Stddev	.00045	.00031	.00027	.00028	.00100	.00054	.00068	.00008	.00066
%RSD	30.756	.08633	11.412	7.4704	9.6062	3.5914	69.375	3.7461	76.232

#1	-.00116	.36313	-.00252	.00394	.01107	-.01529	-.00147	.00218	.00040
#2	-.00180	.36357	-.00214	.00355	.00966	-.01454	-.00050	.00207	.00134

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4447.2	56405.	6943.1
Stddev	16.1	478.	9.7
%RSD	.36288	.84720	.13964

#1	4458.6	56067.	6936.3
#2	4435.8	56743.	6950.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01379	1.7089	.28459	1.3959	.55325	.01175	F .43911	W 526.81	.02545
Stddev	.00033	.0014	.00066	.0009	.00133	.00008	.00195	4.29	.00006
%RSD	2.3989	.07964	.23183	.06718	.23988	.69316	.44355	.81503	.25082

#1	.01403	1.7079	.28505	1.3966	.55231	.01170	.44049	529.85	.02540
#2	.01356	1.7099	.28412	1.3952	.55419	.01181	.43774	523.78	.02549

Check ?	Chk Pass	Chk Fail	Chk Warn	Chk Pass					
High Limit							.10000	500.00	
Low Limit							-.10000	-.05000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.11721	.04928	.06733	1.2773	W 199.94	1.3591	225.33	.18295	.25043
Stddev	.00037	.00041	.00094	.0061	.50	.0051	.16	.00024	.00242
%RSD	.31541	.83427	1.3890	.47414	.24770	.37481	.06885	.13376	.96482

#1	.11747	.04958	.06799	1.2816	199.59	1.3555	225.22	.18313	.25214
#2	.11695	.04899	.06667	1.2730	200.29	1.3627	225.44	.18278	.24872

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					100.00				
Low Limit					-.50000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 3520.0	.12062	W 2.9889	.08905	F 348.44	.12438	.53143	6.6281	14.184
Stddev	3.0	.00146	.0271	.00092	.29	.00069	.00435	.0226	.048
%RSD	.08405	1.2107	.90618	1.0354	.08204	.55678	.81801	.34117	.34117

#1	3517.9	.12165	3.0080	.08970	348.64	.12389	.53451	6.6121	14.150
#2	3522.1	.11958	2.9697	.08840	348.24	.12487	.52836	6.6441	14.218

Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00		2.0000		200.00				
Low Limit	11.000		-1.0000		-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.43972	2.2264	.24561	.28893	.37006	.48250	.13401	.12237	.12697
Stddev	.00141	.0040	.00417	.00074	.00158	.02671	.00039	.00100	.00067
%RSD	.32054	.17990	1.6992	.25507	.42765	5.5351	.29291	.81892	.52600

#1	.43872	2.2236	.24266	.28945	.36894	.50139	.13429	.12166	.12650
#2	.44072	2.2292	.24856	.28841	.37118	.46362	.13374	.12308	.12744

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3899.9	48824.	6625.3
Stddev	9.2	90.	7.9
%RSD	.23515	.18499	.11936

#1	3893.4	48888.	6619.7
#2	3906.4	48760.	6630.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01283	1.6355	.27668	1.4191	.53117	.01122	F .43402	W 523.63	.02524
Stddev	.00033	.0034	.00162	.0034	.00045	.00003	.00268	6.56	.00013
%RSD	2.5417	.20598	.58712	.24019	.08497	.25564	.61832	1.2534	.51669

#1	.01260	1.6331	.27783	1.4167	.53085	.01120	.43212	518.99	.02515
#2	.01306	1.6379	.27553	1.4216	.53149	.01124	.43592	528.27	.02533

Check ?	Chk Pass	Chk Fail	Chk Warn	Chk Pass					
High Limit							.10000	500.00	
Low Limit							-.10000	-.05000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.11308	.04690	.06563	1.2363	W 205.22	1.3667	223.85	.17825	.24041
Stddev	.00026	.00016	.00012	.0099	.22	.0046	1.00	.00026	.00146
%RSD	.22802	.33532	.18475	.80123	.10819	.33375	.44870	.14459	.60830

#1	.11290	.04701	.06555	1.2293	205.06	1.3635	223.14	.17807	.23938
#2	.11327	.04678	.06572	1.2433	205.37	1.3699	224.57	.17843	.24145

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					100.00				
Low Limit					-.50000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 3595.3	.11644	W 2.9336	.08561	F 356.22	.11890	.51261	6.0480	12.943
Stddev	.9	.00093	.0348	.00289	.69	.00022	.00230	.0156	.033
%RSD	.02491	.79625	1.1866	3.3801	.19329	.18911	.44951	.25784	.25784

#1	3595.9	.11578	2.9090	.08356	355.73	.11874	.51424	6.0369	12.919
#2	3594.7	.11709	2.9582	.08765	356.70	.11906	.51099	6.0590	12.966

Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00		2.0000		200.00				
Low Limit	11.000		-1.0000		-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.42329	2.2089	.22762	.27700	.36583	.50382	.12915	.11994	.12074
Stddev	.00268	.0034	.00231	.00031	.00503	.01048	.00063	.00184	.00451
%RSD	.63354	.15525	1.0131	.11052	1.3745	2.0800	.49019	1.5377	3.7349

#1	.42519	2.2065	.22599	.27722	.36939	.49641	.12960	.11863	.11755
#2	.42140	2.2114	.22926	.27679	.36228	.51123	.12870	.12124	.12392

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3883.9	48901.	6729.3
Stddev	4.8	117.	35.6
%RSD	.12428	.23933	.52868

#1	3887.3	48983.	6704.2
#2	3880.5	48818.	6754.5

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00091	48.275	.00259	.00353	.00018	.00024	1.0036	.01169	-.00020	-.00132	.00065
Stddev	.00070	.198	.00646	.00002	.00009	.00000	.0041	.00833	.00024	.00015	.00003
%RSD	76.754	.40911	249.89	.50165	50.031	1.6334	.40625	71.274	122.00	10.999	4.8784

#1	.00141	48.136	-.00198	.00351	.00024	.00023	1.0007	.01759	-.00003	-.00142	.00063
#2	.00042	48.415	.00715	.00354	.00011	.00024	1.0065	.00580	-.00037	-.00122	.00067

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00605	47.056	1.0955	.00661	.00507	-.00223	-.00065	248.18	.00171	.00782	.00144
Stddev	.00072	.128	.0290	.00379	.00183	.00001	.00040	.85	.00011	.00090	.00148
%RSD	11.970	.27145	2.6513	57.316	36.140	.35114	60.802	.34104	6.5822	11.567	102.87

#1	.00656	46.965	1.1160	.00928	.00637	-.00223	-.00037	247.58	.00163	.00846	.00039
#2	.00554	47.146	1.0750	.00393	.00378	-.00224	-.00093	248.78	.00179	.00718	.00249

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.8397	-.00316	-.00301	-.02030	-.04344	-.00704	.00048	4.8924	-.00117	.00112	W 10.601
Stddev	.0823	.00280	.00238	.00410	.00877	.00006	.00013	.0070	.00042	.00035	.112
%RSD	1.6996	88.694	79.193	20.187	20.187	.88008	26.215	.14405	35.859	31.169	1.0544

#1	4.7816	-.00118	-.00132	-.02320	-.04964	-.00708	.00057	4.8874	-.00087	.00136	10.680
#2	4.8979	-.00514	-.00470	-.01740	-.03724	-.00699	.00039	4.8974	-.00147	.00087	10.522

Check ?	Chk Pass	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value											10.000
Range											5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00292	.00089	.01445
Stddev	.00018	.00028	.00454
%RSD	6.3306	31.064	31.432

#1	.00305	.00070	.01124
#2	.00279	.00109	.01767

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4714.6	59929.	6959.0
Stddev	14.0	245.	31.5
%RSD	.29708	.40804	.45303

#1	4724.5	60102.	6981.3
#2	4704.7	59756.	6936.7

Sample Name: CCV-3333645 Acquired: 6/16/2015 18:17:05 Type: QC

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51700	F .56876	1.0106	.51933	.50143	.48023	-.00073	4.8255	.50684	.51161	.49824	.50673
Stddev	.00089	.00283	.0021	.00058	.00212	.00269	.00135	.0230	.00048	.00092	.00134	.00081
%RSD	.17278	.49844	.21118	.11209	.42241	.56047	183.54	.47684	.09454	.17888	.26965	.15922

#1	.51763	.57077	1.0121	.51892	.49993	.47833	.00022	4.8092	.50718	.51226	.49919	.50731
#2	.51637	.56676	1.0091	.51974	.50293	.48214	-.00168	4.8417	.50651	.51096	.49729	.50616

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass				
Value		.50000										
Range		10.490%										

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.3791	51.587	1.0196	20.425	.50758	.50270	F 5.9629	.52188	1.0608	1.0533	.03400	1.0377
Stddev	.0126	.101	.0050	.043	.00030	.00287	.0218	.00167	.0044	.0139	.00356	.0263
%RSD	.52877	.19607	.49124	.20863	.05908	.57137	.36501	.32057	.41880	1.3213	10.477	2.5380

#1	2.3702	51.516	1.0160	20.455	.50779	.50473	5.9783	.52307	1.0639	1.0632	.03652	1.0563
#2	2.3880	51.659	1.0231	20.395	.50736	.50067	5.9476	.52070	1.0576	1.0435	.03149	1.0191

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass					
Value							5.0000					
Range							10.490%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0277	4.8041	10.281	1.0075	.49784	-.00334	.50755	1.0323	-.00471	.51021	.49725	.49807
Stddev	.0257	.0040	.009	.0208	.00224	.00101	.00068	.0164	.00600	.00546	.00214	.00568
%RSD	2.4964	.08421	.08421	2.0596	.44924	30.326	.13474	1.5883	127.21	1.0700	.42976	1.1409

#1	1.0459	4.8012	10.275	1.0222	.49626	-.00262	.50803	1.0439	-.00896	.50635	.49876	.49406
#2	1.0096	4.8069	10.287	.99284	.49942	-.00405	.50706	1.0207	-.00047	.51407	.49574	.50209

Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass				
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4818.0	61511.	7026.8
Stddev	.1	192.	25.2
%RSD	.00289	.31152	.35805

#1	4817.9	61646.	7044.6
#2	4818.1	61375.	7009.0

Sample Name: CCB Acquired: 6/16/2015 18:19:31 Type: QC
 Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00001	-.00003	.00358	.00035	-.00036	.00004	.00439	-.00376	-.00028	-.00005	-.00014	-.00005
Stddev	.00033	.00013	.00411	.00017	.00018	.00000	.00110	.00181	.00023	.00009	.00012	.00019
%RSD	5977.9	453.81	114.91	47.876	50.613	6.7939	24.923	48.017	81.454	188.47	85.430	346.71

#1	.00024	-.00012	.00067	.00047	-.00023	.00004	.00517	-.00248	-.00044	-.00011	-.00006	.00008
#2	-.00023	.00006	.00649	.00023	-.00048	.00004	.00362	-.00504	-.00012	.00002	-.00023	-.00019

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00082	.41246	.00364	-.00106	-.00006	-.00053	F .61694	.00021	-.00021	.00026	.02159	-.00210
Stddev	.00013	.06500	.00062	.00237	.00001	.00017	.01772	.00052	.00252	.00193	.00094	.00116
%RSD	15.966	15.760	16.977	224.61	15.029	31.931	2.8730	244.33	1177.4	752.27	4.3569	55.157

#1	-.00072	.45842	.00408	.00062	-.00006	-.00041	.62947	-.00015	.00157	.00162	.02225	-.00128
#2	-.00091	.36650	.00320	-.00274	-.00005	-.00064	.60441	.00058	-.00200	-.00111	.02092	-.00292

Check ?	Chk Pass	Chk Fail	Chk Pass									
High Limit							.50000					
Low Limit							-.50000					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00103	-.01501	-.03213	-.00076	.00009	-.00188	-.00025	.00095	.01719	-.00054	.00050	-.00268
Stddev	.00123	.03909	.08365	.00019	.00013	.00262	.00016	.00195	.01674	.00037	.00008	.00044
%RSD	120.01	260.39	260.39	25.535	136.96	139.30	65.229	206.19	97.401	69.055	14.876	16.570

#1	-.00016	.01263	.02702	-.00062	.00018	-.00003	-.00013	.00233	.00535	-.00028	.00045	-.00236
#2	-.00190	-.04265	-.09128	-.00090	.00000	-.00373	-.00036	-.00043	.02903	-.00081	.00056	-.00299

Check ?	Chk Pass											
High Limit												
Low Limit												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4970.1	63461.	7130.7
Stddev	2.7	461.	19.3
%RSD	.05384	.72578	.27035

#1	4968.2	63136.	7117.1
#2	4972.0	63787.	7144.4

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01133	.12267	F .02157	.10779	.00988	.00105	.11865	.21211	.00536	.01090	.01052	.01606
Stddev	.00015	.00086	.00015	.00003	.00024	.00002	.00042	.00153	.00026	.00021	.00032	.00040
%RSD	1.3134	.69936	.71344	.03110	2.4278	2.0418	.35815	.71926	4.8753	1.9148	3.0194	2.4953

#1	.01122	.12327	.02146	.10781	.00971	.00106	.11835	.21103	.00517	.01104	.01075	.01578
#2	.01143	.12206	.02167	.10777	.01005	.00103	.11895	.21319	.00554	.01075	.01030	.01635

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass								
Value			.01500									
Range			30.000%									

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09948	3.5779	F .01596	.22584	.01093	.01992	F 1.5805	.04427	3.2232	.01001	.02308	.00778
Stddev	.00098	.0204	.00315	.00290	.00006	.00005	.0092	.00068	.0324	.00081	.00012	.00087
%RSD	.98407	.56998	19.730	1.2849	.52773	.26607	.58547	1.5288	1.0058	8.0594	.53997	11.226

#1	.10018	3.5635	.01819	.22379	.01089	.01988	1.5740	.04379	3.2003	.00944	.02299	.00716
#2	.09879	3.5923	.01373	.22789	.01097	.01996	1.5871	.04475	3.2461	.01058	.02317	.00840

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value			.01000				1.0000					
Range			30.000%				30.000%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01498	4.7871	1.0244	.10214	.01043	.01180	.01013	.01720	.07300	.01052	.02389	.01430
Stddev	.00306	.00802	.0172	.00029	.00006	.00032	.00030	.00081	.03320	.00032	.00003	.00092
%RSD	20.414	1.6751	1.6751	.28635	.57816	2.7222	2.9305	4.7028	45.480	3.0243	.10958	6.4142

#1	.01282	.48439	1.0366	.10193	.01039	.01202	.00992	.01777	.09647	.01029	.02387	.01365
#2	.01714	.47304	1.0123	.10234	.01047	.01157	.01034	.01663	.04952	.01074	.02391	.01495

Check ?	Chk Pass											
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4983.1	64111.	7155.2
Stddev	7.1	311.	69.2
%RSD	.14250	.48483	.96771

#1	4978.0	63891.	7204.1
#2	4988.1	64330.	7106.2

Sample Name: CCVH-3331930 Acquired: 6/16/2015 19:12:36 Type: QC

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00078	47.880	.00481	.00087	.00020	.00014	1.0061	-.00211	-.00009	-.00124	.00059	.00747	45.276
Stddev	.00002	.182	.00183	.00001	.00034	.00007	.0005	.00794	.00012	.00016	.00020	.00063	.177
%RSD	2.8635	.38092	37.948	1.4144	167.50	48.002	.04586	375.87	126.09	13.073	34.309	8.4439	.38987

#1	.00077	48.009	.00610	.00088	.00044	.00009	1.0064	-.00772	-.00018	-.00113	.00073	.00792	45.401
#2	.00080	47.751	.00352	.00087	-.00004	.00019	1.0058	.00350	-.00001	-.00136	.00045	.00703	45.152

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.30512	.00496	-.00153	-.00214	-.00083	248.94	.00217	.00725	.00073	4.8125	-.00398	-.00541	-.02818
Stddev	.01522	.00320	.00070	.00003	.00018	.47	.00051	.00192	.00061	.0118	.00220	.00148	.00242
%RSD	4.9878	64.562	45.735	1.3784	21.296	.18989	23.419	26.424	83.890	.24522	55.273	27.377	8.5971

#1	.29436	.00269	-.00103	-.00212	-.00095	249.28	.00253	.00589	.00030	4.8041	-.00554	-.00436	-.02989
#2	.31588	.00722	-.00202	-.00216	-.00070	248.61	.00181	.00860	.00116	4.8208	-.00242	-.00645	-.02647

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.06031	-.00683	.00046	4.8463	-.00246	.00145	10.344	.00276	.00025	.01107
Stddev	.00518	.00027	.00002	.0059	.00024	.00198	.034	.00031	.00005	.00039
%RSD	8.5971	3.9471	4.2980	.12173	9.7784	136.80	.33273	11.291	19.475	3.4943

#1	-.06398	-.00702	.00047	4.8422	-.00263	.00005	10.319	.00298	.00029	.01080
#2	-.05664	-.00664	.00044	4.8505	-.00229	.00285	10.368	.00254	.00022	.01134

Check ?	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4675.9	60605.	6883.7
Stddev	14.3	122.	33.1
%RSD	.30478	.20107	.48147

#1	4686.0	60691.	6907.1
#2	4665.8	60519.	6860.2

Sample Name: CCV-3333645 Acquired: 6/16/2015 19:15:12 Type: QC

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51816	F .57841	1.0114	.51411	.51094	.48382	-.00186	4.8714	.50544	.50928	.50057	.51670
Stddev	.00308	.00107	.0026	.00031	.00069	.00015	.00020	.0112	.00028	.00011	.00087	.00002
%RSD	.59384	.18445	.25819	.05955	.13413	.03067	10.994	.22954	.05461	.02170	.17323	.00377

#1	.51598	.57917	1.0096	.51389	.51143	.48371	-.00201	4.8793	.50563	.50921	.50118	.51669
#2	.52033	.57766	1.0133	.51433	.51046	.48392	-.00172	4.8635	.50524	.50936	.49995	.51671

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass				
Value		.50000										
Range		10.490%										

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.3676	51.306	1.0365	20.077	.50092	.50640	5.3627	.51267	1.0495	1.0356	.01078	1.0186
Stddev	.0046	.166	.0001	.048	.00117	.00082	.0182	.00626	.0062	.0049	.00019	.0070
%RSD	.19596	.32434	.00817	.23830	.23290	.16162	.33922	1.2210	.59151	.46967	1.7688	.68607

#1	2.3708	51.424	1.0364	20.044	.50009	.50582	5.3755	.50824	1.0451	1.0322	.01065	1.0137
#2	2.3643	51.189	1.0365	20.111	.50174	.50698	5.3498	.51709	1.0539	1.0391	.01092	1.0236

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0063	4.7175	10.095	.99985	.50338	-.00428	.50402	1.0245	-.00952	.50691	.49419	.49334
Stddev	.0074	.0212	.045	.00509	.00048	.00130	.00051	.0046	.00853	.00480	.00254	.00369
%RSD	.73455	.44909	.44909	.50914	.09537	30.322	.10099	.44995	89.569	.94770	.51386	.74810

#1	1.0011	4.7324	10.127	.99625	.50372	-.00519	.50366	1.0213	-.00349	.51031	.49240	.49073
#2	1.0115	4.7025	10.063	1.0034	.50304	-.00336	.50438	1.0278	-.01555	.50351	.49599	.49595

Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass				
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4792.8	62446.	6925.5
Stddev	2.0	251.	78.9
%RSD	.04078	.40227	1.1399

#1	4794.2	62269.	6869.7
#2	4791.4	62624.	6981.4

Sample Name: CCB Acquired: 6/16/2015 19:17:38 Type: QC
 Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00050	.00007	.00258	.00016	-.00001	.00001	.00451	-.00863	-.00025	.00018	.00006	.00000	-.00300
Stddev	.00031	.00008	.00017	.00022	.00011	.00005	.00084	.00514	.00004	.00033	.00013	.00023	.00016
%RSD	62.755	106.86	6.7813	135.90	1364.1	392.46	18.603	59.507	15.448	187.20	209.84	5540.8	5.4999
#1	.00028	.00013	.00245	.00001	-.00008	-.00002	.00511	-.00500	-.00028	.00041	.00015	.00016	-.00288
#2	.00072	.00002	.00270	.00032	.00007	.00005	.00392	-.01227	-.00022	-.00006	-.00003	-.00016	-.00312

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.24918	.00446	-.00148	-.00007	-.00023	.18062	.00082	.00001	-.00007	.00456	-.00202	.00052	.00622
Stddev	.01018	.00275	.00014	.00004	.00029	.00894	.00012	.00078	.00020	.00008	.00091	.00028	.01064
%RSD	4.0855	61.580	9.2686	63.241	127.01	4.9489	14.222	5695.2	286.25	1.8109	45.119	53.640	171.21
#1	.24198	.00641	-.00139	-.00004	-.00043	.18694	.00074	.00057	.00007	.00462	-.00266	.00032	.01374
#2	.25638	.00252	-.00158	-.00010	-.00002	.17430	.00090	-.00054	-.00021	.00450	-.00137	.00072	-.00131

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01331	-.00025	.00002	-.00206	-.00046	-.00054	.01278	.00016	.00017	-.00090
Stddev	.02278	.00013	.00002	.00081	.00016	.00109	.03180	.00017	.00036	.00190
%RSD	171.21	50.806	134.30	39.167	34.917	203.96	248.81	104.28	213.99	211.54
#1	.02941	-.00035	.00003	-.00149	-.00058	.00024	-.00970	.00004	-.00009	.00044
#2	-.00280	-.00016	.00000	-.00263	-.00035	-.00131	.03527	.00028	.00042	-.00224

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4926.9	63762.	6960.4
Stddev	3.8	287.	12.2
%RSD	.07640	.44947	.17468
#1	4929.5	63965.	6969.0
#2	4924.2	63560.	6951.8

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01080	.12126	.01894	.10539	.01023	.00103	.11672	.19989	.00520	.01093	.01031	.01574
Stddev	.00060	.00017	.00049	.00066	.00032	.00006	.00118	.00051	.00026	.00023	.00036	.00023
%RSD	5.5657	.13827	2.5685	.62722	3.1188	5.5411	1.0147	.25671	4.9133	2.0913	3.4944	1.4905

#1	.01123	.12115	.01860	.10492	.01001	.00107	.11588	.20025	.00539	.01076	.01006	.01557
#2	.01038	.12138	.01929	.10586	.01046	.00099	.11755	.19953	.00502	.01109	.01057	.01590

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09141	3.3526	F .01618	.22445	.01058	.01986	1.2225	.04287	3.1462	.00899	.00682	F .00597
Stddev	.00280	.0055	.00063	.00060	.00003	.00016	.0182	.00009	.0021	.00095	.00084	.00180
%RSD	3.0593	.16415	3.9122	.26723	.24924	.79097	1.4896	.20082	.06808	10.529	12.305	30.142

#1	.08943	3.3565	.01573	.22488	.01060	.01997	1.2096	.04281	3.1447	.00832	.00623	.00470
#2	.09339	3.3487	.01662	.22403	.01056	.01975	1.2354	.04293	3.1477	.00966	.00742	.00724

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Fail						
Value			.01000									.01000
Range			30.000%									-30.000%

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01598	4.5848	.98115	.10109	.01035	.01443	.01010	.01570	.07229	.01082	.02286	.01372
Stddev	.00054	.00970	.02076	.00025	.00016	.00078	.00056	.00097	.00052	.00001	.00013	.00061
%RSD	3.3781	2.1160	2.1160	.24572	1.5910	5.3832	5.5615	6.1794	.71256	.06993	.58817	4.4323

#1	.01560	.45162	.96647	.10091	.01024	.01498	.00971	.01638	.07266	.01081	.02276	.01329
#2	.01637	.46534	.99583	.10126	.01047	.01388	.01050	.01501	.07193	.01082	.02295	.01415

Check ?	Chk Pass											
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4982.0	63696.	7064.0
Stddev	32.1	421.	13.2
%RSD	.64392	.66030	.18657

#1	5004.7	63993.	7073.3
#2	4959.3	63398.	7054.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00000	.00280	.00564	-.00001	-.00033	-.00007	.00109	.01543	-.00013
Stddev	.00007	.00038	.00065	.00046	.00019	.00009	.00004	.00258	.00020
%RSD	4166.2	13.538	11.583	5259.4	58.769	138.37	3.3096	16.697	150.99

#1	-.00005	.00307	.00610	.00032	-.00019	.00000	.00106	.01361	-.00028
#2	.00005	.00253	.00518	-.00033	-.00047	-.00013	.00111	.01725	.00001

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00007	-.00005	-.00016	.00102	.20464	.00339	.00429	.00012	-.00046
Stddev	.00009	.00015	.00065	.00024	.03496	.00170	.00711	.00004	.00019
%RSD	130.53	308.10	399.05	23.107	17.086	50.107	165.74	32.532	41.507

#1	.00001	-.00015	-.00062	.00086	.17991	.00460	.00931	.00015	-.00033
#2	.00013	.00006	.00029	.00119	.22936	.00219	-.00074	.00009	-.00060

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.16942	-.00003	.00435	.00025	.00667	-.00286	-.00051	-.00692	-.01482
Stddev	.01905	.00011	.00055	.00089	.00227	.00065	.00471	.01049	.02245
%RSD	11.242	378.74	12.548	362.85	34.026	22.607	916.68	151.49	151.49

#1	.18289	-.00010	.00396	-.00038	.00827	-.00332	-.00384	.00049	.00105
#2	.15596	.00005	.00474	.00088	.00506	-.00240	.00281	-.01434	-.03069

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00017	.00002	-.00088	-.00025	-.00124	.02990	.00014	.00136	-.00085
Stddev	.00009	.00011	.00038	.00029	.00004	.01179	.00006	.00053	.00100
%RSD	49.723	479.81	43.644	114.88	3.1485	39.428	43.623	38.954	117.22

#1	-.00011	.00010	-.00115	-.00005	-.00121	.03824	.00018	.00098	-.00156
#2	-.00023	-.00006	-.00061	-.00046	-.00127	.02156	.00009	.00173	-.00015

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4974.9	63414.	7084.3
Stddev	7.0	140.	8.2
%RSD	.14022	.22068	.11619

#1	4979.9	63315.	7078.4
#2	4970.0	63513.	7090.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05407	2.1997	1.0048	1.0441	2.0414	.04869	2.0431	48.622	.10099
Stddev	.00086	.0034	.0097	.0124	.0038	.00000	.0204	.181	.00117
%RSD	1.5861	.15584	.96822	1.1912	.18434	.00320	.99897	.37219	1.1560

#1	.05468	2.2021	.99792	1.0353	2.0387	.04869	2.0286	48.494	.10016
#2	.05347	2.1973	1.0117	1.0529	2.0440	.04868	2.0575	48.750	.10182

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50541	F .20171	.25987	.94603	52.649	1.0485	51.240	.50909	1.0275
Stddev	.00005	.00060	.00032	.00005	.154	.0053	.179	.00069	.0010
%RSD	.00899	.29813	.12486	.00544	.29193	.50676	.35011	.13622	.10021

#1	.50538	.20128	.25964	.94599	52.540	1.0448	51.366	.50958	1.0282
#2	.50544	.20213	.26010	.94607	52.758	1.0523	51.113	.50860	1.0268

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	52.364	.50381	10.734	.50009	1.9203	.50181	2.0271	9.5527	20.443
Stddev	.383	.00147	.020	.00501	.0163	.00742	.0144	.0763	.163
%RSD	.73195	.29258	.19089	1.0013	.84896	1.4777	.71185	.79896	.79896

#1	52.093	.50485	10.720	.49655	1.9087	.49657	2.0169	9.4988	20.327
#2	52.635	.50277	10.749	.50363	1.9318	.50705	2.0373	9.6067	20.558

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9690	1.0127	.97355	1.0263	1.9735	2.1047	.51775	.49668	.49696
Stddev	.0109	.0026	.00202	.0004	.0125	.0328	.00031	.00127	.00835
%RSD	.55134	.26006	.20770	.04194	.63533	1.5567	.06046	.25540	1.6804

#1	1.9614	1.0108	.97498	1.0266	1.9647	2.0816	.51753	.49758	.49105
#2	1.9767	1.0146	.97212	1.0260	1.9824	2.1279	.51797	.49578	.50286

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4680.1	60311.	6862.8
Stddev	11.6	385.	25.4
%RSD	.24873	.63810	.37011

#1	4671.8	60039.	6844.8
#2	4688.3	60583.	6880.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00039	.06179	.01250	.05434	.14202	-.00003	-.00319	96.874	-.00010
Stddev	.00018	.00046	.00077	.00050	.00030	.00012	.00144	.296	.00002
%RSD	45.543	.74294	6.1815	.91842	.20920	455.47	45.188	.30580	19.863

#1	.00052	.06211	.01196	.05399	.14223	-.00011	-.00217	97.084	-.00011
#2	.00027	.06146	.01305	.05469	.14181	.00006	-.00421	96.665	-.00009

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00028	-.00002	.00062	.03829	1.3785	.03308	19.061	.00643	-.00403
Stddev	.00008	.00007	.00014	.00242	.0189	.00029	.006	.00001	.00032
%RSD	26.822	337.34	21.729	6.3124	1.3679	.86250	.03237	.16468	7.8478

#1	-.00023	.00003	.00053	.03658	1.3652	.03288	19.057	.00644	-.00380
#2	-.00033	-.00007	.00072	.04000	1.3918	.03328	19.065	.00643	-.00425

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	47.126	.00026	.01421	F -.01136	7.7313	-.00406	.00842	11.583	24.788
Stddev	.140	.00064	.00124	.00072	.0278	.00119	.00070	.058	.125
%RSD	.29648	247.73	8.7293	6.3216	.36012	29.407	8.3594	.50467	.50467

#1	47.027	-.00019	.01333	-.01085	7.7116	-.00322	.00891	11.542	24.700
#2	47.225	.00071	.01509	-.01186	7.7510	-.00491	.00792	11.625	24.876

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass				
High Limit				200.00					
Low Limit				-.00600					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00024	1.3058	-.00172	.00017	.00925	.00704	.00882	.00275	-.00233
Stddev	.00043	.0047	.00148	.00023	.00242	.04183	.00014	.00009	.00049
%RSD	183.29	.35717	86.071	133.55	26.126	593.88	1.6396	3.2886	21.117

#1	-.00054	1.3091	-.00277	.00001	.00754	.03662	.00892	.00281	-.00268
#2	.00007	1.3025	-.00067	.00033	.01096	-.02253	.00871	.00269	-.00198

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4723.7	60471.	6899.1
Stddev	.9	51.	3.4
%RSD	.01903	.08490	.04898

#1	4723.0	60507.	6896.7
#2	4724.3	60435.	6901.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0052	.01253	.00826	.01078	.02856	-0.0003	.00199	19.383	-0.0010
Stddev	.00008	.00022	.00312	.00013	.00010	.00002	.00090	.054	.00007
%RSD	14.740	1.7189	37.775	1.2409	.34488	70.242	45.399	.27661	70.495

#1	-0.0047	.01238	.01046	.01069	.02863	-0.0001	.00135	19.345	-0.0005
#2	-0.0057	.01268	.00605	.01088	.02849	-0.0004	.00262	19.421	-0.0015

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0023	-0.0033	.00039	.00891	.44907	.01149	4.0266	.00132	-0.00203
Stddev	.00005	.00010	.00039	.00096	.02154	.00011	.0089	.00003	.00025
%RSD	23.977	29.654	99.276	10.823	4.7968	.98603	.22096	2.3342	12.526

#1	-0.0026	-0.0026	.00012	.00959	.43384	.01141	4.0203	.00130	-0.00220
#2	-0.0019	-0.0040	.00067	.00823	.46430	.01157	4.0329	.00134	-0.0185

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.3419	.00022	.00360	W -.00344	1.5980	-0.00344	.00466	2.3114	4.9465
Stddev	.0019	.00012	.00051	.00007	.0138	.00127	.00198	.0084	.0181
%RSD	.02047	52.848	14.185	1.9732	.86655	37.058	42.417	.36561	.36561

#1	9.3406	.00030	.00396	-.00349	1.6078	-.00434	.00605	2.3055	4.9337
#2	9.3433	.00014	.00324	-.00339	1.5882	-.00254	.00326	2.3174	4.9593

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.00300					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0116	.26103	-.00165	-.00061	.00369	.00435	.00191	.00125	-.00141
Stddev	.00075	.00034	.00111	.00066	.00096	.02724	.00001	.00020	.00372
%RSD	64.517	.13107	67.071	107.47	25.957	626.76	.60091	15.988	264.28

#1	-0.0169	.26079	-0.0087	-.00108	.00436	-.01492	.00192	.00139	-.00404
#2	-0.0063	.26127	-.00243	-.00015	.00301	.02361	.00190	.00111	.00122

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4951.7	62534.	6976.3
Stddev	50.2	365.	44.6
%RSD	1.0142	.58432	.63974

#1	4916.2	62792.	6944.7
#2	4987.2	62275.	7007.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05520	2.2236	1.0324	1.1021	2.1883	.04912	F 2.0751	142.99	.10343
Stddev	.00003	.0005	.0078	.0016	.0068	.00004	.0101	.03	.00003
%RSD	.06022	.02319	.75188	.14636	.30909	.08412	.48467	.02124	.02941

#1	.05518	2.2240	1.0269	1.1009	2.1835	.04909	2.0679	142.96	.10340
#2	.05523	2.2232	1.0379	1.1032	2.1931	.04915	2.0822	143.01	.10345

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50678	W .20223	.26271	.97686	54.640	1.0836	70.152	.51481	1.0244
Stddev	.00021	.00009	.00152	.00067	.113	.0020	.001	.00122	.0030
%RSD	.04133	.04209	.57798	.06903	.20715	.18587	.00122	.23791	.29314

#1	.50663	.20217	.26379	.97639	54.560	1.0822	70.153	.51567	1.0223
#2	.50692	.20229	.26164	.97734	54.720	1.0850	70.151	.51394	1.0265

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	97.844	.50523	W 11.041	.49416	9.9682	.51676	2.0710	21.193	45.353
Stddev	.391	.00062	.009	.00151	.0187	.00106	.0132	.021	.045
%RSD	.39919	.12203	.07957	.30536	.18804	.20581	.63743	.10017	.10017

#1	97.567	.50479	11.035	.49309	9.9550	.51601	2.0616	21.178	45.321
#2	98.120	.50567	11.048	.49523	9.9815	.51751	2.0803	21.208	45.385

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9630	2.3121	.98500	1.0361	1.9271	2.0989	.53238	.49443	.50007
Stddev	.0151	.0077	.00076	.0011	.0148	.0220	.00077	.00028	.00278
%RSD	.77091	.33259	.07708	.10800	.76581	1.0494	.14483	.05744	.55667

#1	1.9523	2.3067	.98447	1.0368	1.9166	2.1144	.53292	.49423	.49810
#2	1.9737	2.3176	.98554	1.0353	1.9375	2.0833	.53183	.49463	.50204

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4667.3	59652.	7053.7
Stddev	.2	138.	18.1
%RSD	.00411	.23102	.25721

#1	4667.1	59555.	7040.9
#2	4667.4	59750.	7066.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05550	2.2351	1.0238	1.1143	2.1750	.04878	F 2.0571	143.25	.10288
Stddev	.00059	.0005	.0039	.0020	.0046	.00007	.0023	.40	.00017
%RSD	1.0716	.02364	.38020	.17723	.21372	.14231	.11058	.27708	.16392

#1	.05508	2.2355	1.0210	1.1129	2.1783	.04873	2.0555	143.53	.10300
#2	.05592	2.2347	1.0266	1.1157	2.1717	.04883	2.0588	142.97	.10277

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50570	W .19984	.26316	.97807	54.401	1.0803	70.679	.51776	1.0164
Stddev	.00047	.00018	.00092	.00573	.032	.0000	.229	.00065	.0017
%RSD	.09290	.09067	.34998	.58618	.05792	.00082	.32467	.12504	.16278

#1	.50603	.19997	.26251	.98212	54.378	1.0803	70.517	.51730	1.0175
#2	.50537	.19972	.26381	.97402	54.423	1.0803	70.841	.51822	1.0152

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	97.772	.50475	W 11.029	.48831	9.9597	.50934	2.0512	21.224	45.419
Stddev	.225	.00034	.001	.00107	.0153	.00083	.0010	.056	.121
%RSD	.22969	.06746	.00589	.21850	.15352	.16365	.04834	.26597	.26597

#1	97.613	.50451	11.029	.48755	9.9489	.50993	2.0505	21.264	45.504
#2	97.931	.50499	11.030	.48906	9.9705	.50875	2.0519	21.184	45.334

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9217	2.3156	.99302	1.0368	1.9031	2.1386	.53448	.49267	.49446
Stddev	.0064	.0036	.00068	.0014	.0004	.0075	.00103	.00000	.00391
%RSD	.33253	.15590	.06822	.13706	.01979	.35143	.19233	.00010	.79131

#1	1.9172	2.3182	.99350	1.0358	1.9033	2.1333	.53521	.49267	.49170
#2	1.9262	2.3131	.99254	1.0378	1.9028	2.1439	.53375	.49267	.49723

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4641.7	58742.	6949.6
Stddev	3.0	202.	40.0
%RSD	.06535	.34435	.57546

#1	4643.8	58599.	6977.8
#2	4639.6	58885.	6921.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05348	1.1306	.21137	.15665	.23699	.04810	-.00340	112.22	.05147
Stddev	.00043	.0028	.00274	.00047	.00005	.00004	.00017	.19	.00038
%RSD	.80727	.24683	1.2960	.30260	.02104	.07441	4.8973	.17034	.72890

#1	.05378	1.1325	.20943	.15632	.23695	.04812	-.00351	112.08	.05120
#2	.05317	1.1286	.21331	.15699	.23702	.04807	-.00328	112.35	.05173

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04947	.04966	.05194	.95401	21.902	.13701	38.436	.05567	.04554
Stddev	.00060	.00020	.00024	.00129	.032	.00121	.185	.00016	.00015
%RSD	1.2116	.40203	.45509	.13550	.14747	.88144	.48009	.29216	.32199

#1	.04904	.04951	.05211	.95309	21.925	.13787	38.566	.05579	.04543
#2	.04989	.04980	.05177	.95492	21.879	.13616	38.305	.05556	.04564

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	66.747	.04966	W 2.1979	.08830	7.8804	.09509	.21049	16.078	34.406
Stddev	.020	.00060	.0054	.00119	.0151	.00067	.00053	.059	.127
%RSD	.03065	1.2149	.24760	1.3524	.19155	.70970	.25076	.36877	.36877

#1	66.762	.05009	2.1941	.08915	7.8910	.09461	.21086	16.119	34.496
#2	66.733	.04924	2.2018	.08746	7.8697	.09556	.21012	16.036	34.316

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09619	1.3235	.18871	.05055	.20163	.49400	.05911	.20681	.05070
Stddev	.00054	.0008	.00242	.00026	.00055	.00815	.00110	.00209	.00029
%RSD	.55802	.05741	1.2798	.51342	.27123	1.6504	1.8687	1.0115	.58085

#1	.09657	1.3230	.19041	.05036	.20124	.48824	.05989	.20829	.05050
#2	.09581	1.3241	.18700	.05073	.20201	.49977	.05833	.20534	.05091

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4726.7	60302.	7015.2
Stddev	8.0	195.	4.1
%RSD	.16943	.32343	.05806

#1	4721.1	60164.	7018.0
#2	4732.4	60439.	7012.3

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00087	48.281	.00305	.00265	.00049	.00010	1.0006	.00454	-.00010	-.00145	.00050
Stddev	.00087	.001	.00197	.00025	.00009	.00001	.0043	.00096	.00028	.00038	.00023
%RSD	99.920	.00285	64.418	9.2902	19.241	6.0597	.43257	21.125	294.00	26.015	46.427

#1	.00149	48.282	.00166	.00282	.00042	.00011	.99750	.00522	.00010	-.00118	.00034
#2	.00026	48.280	.00444	.00247	.00055	.00010	1.0036	.00386	-.00030	-.00172	.00067

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00633	46.120	.40806	.00605	.00188	-.00227	-.00013	247.87	.00204	.00403	.00001
Stddev	.00028	.142	.01854	.00009	.00304	.00003	.00039	.06	.00032	.00008	.00018
%RSD	4.3633	.30776	4.5438	1.4442	161.44	1.2474	298.55	.02508	15.896	2.0952	2802.3

#1	.00652	46.020	.39495	.00612	.00403	-.00229	.00014	247.83	.00181	.00409	.00014
#2	.00613	46.220	.42117	.00599	-.00027	-.00225	-.00040	247.92	.00227	.00397	-.00012

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4.7440	-.00382	-.00585	-.00271	-.00580	-.00668	.00045	4.8951	-.00091	.00060	W 10.665
Stddev	.0393	.00270	.00225	.01542	.03301	.00119	.00011	.0063	.00016	.00054	.005
%RSD	.82889	70.594	38.446	569.55	569.55	17.756	24.085	.12759	17.986	90.102	.04628

#1	4.7162	-.00191	-.00744	-.01361	-.02914	-.00751	.00038	4.8995	-.00079	.00098	10.668
#2	4.7718	-.00573	-.00426	.00820	.01754	-.00584	.00053	4.8907	-.00102	.00022	10.661

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value	5.0000										10.000
Range	-5.0000%										5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00271	.00114	.00785
Stddev	.00054	.00043	.00246
%RSD	19.784	37.372	31.379

#1	.00308	.00084	.00960
#2	.00233	.00144	.00611

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4751.5	59838.	6966.2
Stddev	10.3	28.	37.2
%RSD	.21611	.04685	.53419

#1	4758.7	59818.	6939.9
#2	4744.2	59858.	6992.5

Sample Name: CCV-3333645 Acquired: 6/16/2015 19:45:33 Type: QC

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.53045	F .56459	.99178	.51252	.49543	.47492	.00086	4.7293	.50350	.50846	.48613	.51415
Stddev	.00126	.00081	.00206	.00062	.00221	.00126	.00051	.0092	.00038	.00126	.00112	.00236
%RSD	.23831	.14397	.20783	.12175	.44553	.26475	58.897	.19435	.07474	.24860	.22944	.45916

#1	.53135	.56516	.99324	.51296	.49387	.47404	.00122	4.7228	.50377	.50936	.48692	.51582
#2	.52956	.56401	.99033	.51208	.49699	.47581	.00050	4.7358	.50324	.50757	.48534	.51248

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass				
Value		.50000										
Range		10.490%										

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.3318	51.369	1.0172	20.758	.51244	.49322	5.2919	.52002	1.0551	1.0483	.01288	1.0168
Stddev	.0294	.057	.0086	.051	.00056	.00155	.0220	.00154	.0052	.0097	.00044	.0141
%RSD	1.2590	.11135	.84649	.24723	.10878	.31368	.41564	.29531	.49616	.92492	3.4357	1.3887

#1	2.3111	51.329	1.0111	20.794	.51284	.49431	5.2763	.52111	1.0588	1.0552	.01257	1.0267
#2	2.3526	51.409	1.0233	20.722	.51205	.49213	5.3074	.51893	1.0514	1.0415	.01320	1.0068

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0002	4.7215	10.104	.98201	.49337	-.00338	.51064	1.0025	-.00389	.51830	.50205	.49373
Stddev	.0047	.1025	.219	.01097	.00122	.00262	.00219	.0148	.05169	.00758	.00116	.01064
%RSD	.47118	2.1707	2.1707	1.1169	.24644	77.489	.42846	1.4722	1328.8	1.4624	.23177	2.1555

#1	1.0036	4.6490	9.9488	.98977	.49251	-.00523	.51219	1.0129	.03266	.52366	.50287	.48620
#2	.99689	4.7939	10.259	.97426	.49423	-.00153	.50910	.99202	-.04044	.51294	.50123	.50125

Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass				
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4856.5	60934.	6991.1
Stddev	4.5	339.	20.0
%RSD	.09344	.55629	.28670

#1	4853.3	60694.	6977.0
#2	4859.7	61173.	7005.3

Sample Name: CCB Acquired: 6/16/2015 19:47:59 Type: QC
 Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00027	.00027	.00462	.00041	-.00054	.00002	.00385	-.00563	-.00010	.00020	-.00020	-.00009	-.00120
Stddev	.00066	.00034	.00110	.00037	.00023	.00002	.00122	.00172	.00006	.00001	.00017	.00001	.00046
%RSD	243.86	126.95	23.911	90.956	42.388	96.269	31.524	30.613	59.364	6.5018	88.631	9.6440	38.416
#1	.00073	.00051	.00383	.00067	-.00038	.00003	.00300	-.00685	-.00015	.00021	-.00007	-.00009	-.00088
#2	-.00020	.00003	.00540	.00015	-.00071	.00001	.00471	-.00441	-.00006	.00019	-.00032	-.00008	-.00153

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.24913	.00550	-.00564	-.00003	-.00017	.15586	.00044	-.00009	.00050	.00365	-.00170	.00137	.00252
Stddev	.07104	.00091	.00080	.00007	.00039	.00418	.00005	.00378	.00116	.00078	.00028	.00011	.01367
%RSD	28.515	16.577	14.196	232.00	223.64	2.6792	12.397	3988.4	231.17	21.401	16.320	7.7504	543.38
#1	.29936	.00486	-.00507	.00002	.00010	.15881	.00040	-.00277	-.00032	.00420	-.00189	.00145	-.00715
#2	.19890	.00615	-.00620	-.00008	-.00045	.15290	.00048	.00258	.00132	.00310	-.00150	.00130	.01219

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00539	-.00104	.00016	-.00009	-.00049	-.00057	-.01325	.00013	.00043	.00069
Stddev	.02926	.00120	.00015	.00213	.00033	.00110	.03655	.00012	.00067	.00033
%RSD	543.38	114.91	96.070	2403.9	65.954	194.20	275.89	93.234	156.02	47.418
#1	-.01531	-.00189	.00005	.00142	-.00072	.00021	-.03909	.00005	.00090	.00092
#2	.02608	-.00020	.00027	-.00160	-.00026	-.00134	.01260	.00022	-.00004	.00046

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4987.6	62778.	7032.8
Stddev	5.6	154.	87.3
%RSD	.11320	.24489	1.2419
#1	4983.6	62887.	7094.6
#2	4991.6	62670.	6971.1

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01141	.11852	.01826	.10691	.00970	.00106	.11607	.19715	.00521	.01105	.01010	.01541
Stddev	.00025	.00029	.00025	.00005	.00011	.00005	.00239	.00097	.00002	.00027	.00009	.00024
%RSD	2.1824	.24420	1.3693	.04672	1.1003	5.0006	2.0559	.49252	.40424	2.4511	.86744	1.5628

#1	.01159	.11831	.01808	.10688	.00962	.00102	.11438	.19647	.00522	.01086	.01003	.01558
#2	.01124	.11872	.01844	.10695	.00977	.00109	.11776	.19784	.00519	.01124	.01016	.01524

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09354	3.4472	.01244	.22843	.01084	.01899	1.2286	.04379	3.1806	.00928	.00605	.00964
Stddev	.00201	.0246	.00045	.00814	.00005	.00002	.0228	.00014	.0029	.00131	.00291	.00103
%RSD	2.1522	.71316	3.5821	3.5644	.46279	.08459	1.8594	.32518	.09241	14.123	48.135	10.675

#1	.09212	3.4298	.01276	.22267	.01088	.01898	1.2448	.04389	3.1785	.01020	.00810	.01037
#2	.09497	3.4646	.01213	.23418	.01081	.01901	1.2125	.04368	3.1827	.00835	.00399	.00891

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01626	4.7067	1.0072	.09937	.01039	.01452	.01021	.01690	F .08450	.01016	.02299	.01441
Stddev	.00266	.01190	.0255	.00137	.00007	.00169	.00024	.00077	.04152	.00004	.00077	.00016
%RSD	16.385	2.5279	2.5279	1.3785	.66853	11.613	2.3211	4.5332	49.143	.40035	3.3501	1.0931

#1	.01438	.47909	1.0252	.09840	.01044	.01571	.01005	.01636	.05514	.01014	.02244	.01430
#2	.01815	.46226	.98924	.10034	.01034	.01333	.01038	.01744	.11386	.01019	.02353	.01452

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass							
Value									.06000			
Range									30.0000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5025.3	62903.	7072.4
Stddev	2.7	108.	32.9
%RSD	.05461	.17224	.46580

#1	5023.3	62826.	7095.7
#2	5027.2	62979.	7049.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00047	.00313	.00496	-.00058	-.00031	-.00003	.00559	.00399	-.00032
Stddev	.00060	.00005	.00157	.00025	.00008	.00002	.00039	.00385	.00012
%RSD	127.40	1.6084	31.639	43.357	24.888	81.177	6.9510	96.440	36.991

#1	.00089	.00316	.00607	-.00075	-.00026	-.00004	.00531	.00127	-.00024
#2	.00005	.00309	.00385	-.00040	-.00037	-.00001	.00586	.00672	-.00040

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00029	-.00008	-.00016	.00203	.22843	W .00538	.00056	.00008	-.00050
Stddev	.00007	.00004	.00018	.00167	.00645	.00199	.00266	.00004	.00030
%RSD	25.512	50.351	114.25	82.489	2.8218	37.033	476.45	48.638	59.359

#1	.00035	-.00005	-.00029	.00085	.23299	.00397	-.00132	.00005	-.00029
#2	.00024	-.00011	-.00003	.00321	.22387	.00679	.00244	.00011	-.00071

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						.00500			
Low Limit						-.00500			

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.13885	.00075	.00305	.00013	.00803	-.00210	-.00204	-.00218	-.00467
Stddev	.00367	.00021	.00020	.00014	.00092	.00004	.00064	.02626	.05619
%RSD	2.6431	27.829	6.4173	106.10	11.471	1.9329	31.565	1203.2	1203.2

#1	.14145	.00090	.00291	.00003	.00738	-.00213	-.00250	-.02075	-.04441
#2	.13626	.00060	.00319	.00023	.00868	-.00207	-.00159	.01639	.03506

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00006	.00013	-.00276	.00007	-.00061	.01654	-.00009	.00113	-.00006
Stddev	.00044	.00014	.00159	.00028	.00007	.03107	.00002	.00002	.00215
%RSD	798.07	112.11	57.706	376.74	11.386	187.83	26.606	1.8618	3833.8

#1	-.00026	.00003	-.00389	-.00012	-.00066	.03851	-.00007	.00114	-.00158
#2	.00037	.00023	-.00163	.00027	-.00056	-.00543	-.00011	.00111	.00146

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	5044.6	63185.	7112.4
Stddev	.6	348.	19.3
%RSD	.01182	.55126	.27157

#1	5045.0	62938.	7126.0
#2	5044.1	63431.	7098.7

Sample Name: lcs 280-281519/2-a Acquired: 6/16/2015 19:55:19 Type: Unk

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: Custom ID2: Custom ID3:

Comment: 281519 6010C

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05661	2.1766	1.0239	F 1.1053	1.9879	.04803	2.0803	47.318	.10336
Stddev	.00035	.0041	.0054	.0027	.0122	.00008	.0122	.178	.00038
%RSD	.61009	.18653	.52698	.24043	.61510	.15935	.58772	.37651	.36723

#1	.05637	2.1738	1.0277	1.1072	1.9792	.04798	2.0890	47.192	.10363
#2	.05686	2.1795	1.0201	1.1034	1.9965	.04809	2.0717	47.444	.10309

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
High Limit				1.1050					
Low Limit				.86000					

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50824	F .19671	.26044	.92996	52.510	1.0244	53.003	.51586	.99701
Stddev	.00456	.00040	.00086	.00686	.167	.0066	.095	.00043	.00275
%RSD	.89784	.20583	.33096	.73753	.31776	.64051	.17914	.08346	.27545

#1	.50501	.19699	.26105	.92511	52.392	1.0197	52.936	.51617	.99896
#2	.51147	.19642	.25984	.93481	52.628	1.0290	53.070	.51556	.99507

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	51.685	.51273	11.088	.50830	1.9907	.51966	2.1745	9.5479	20.433
Stddev	.474	.00024	.037	.00097	.0174	.00250	.0098	.0666	.142
%RSD	.91754	.04685	.33628	.19047	.87498	.48127	.45110	.69737	.69737

#1	51.350	.51256	11.115	.50762	2.0031	.52143	2.1814	9.5009	20.332
#2	52.021	.51290	11.062	.50899	1.9784	.51789	2.1676	9.5950	20.533

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9420	.99193	.98255	1.0328	1.9681	2.1077	.52314	.50311	.49310
Stddev	.0032	.00445	.00345	.0013	.0066	.0321	.00026	.00233	.00316
%RSD	.16547	.44815	.35135	.12773	.33791	1.5255	.05060	.46258	.64174

#1	1.9443	.98879	.98011	1.0337	1.9728	2.1304	.52295	.50146	.49086
#2	1.9398	.99507	.98499	1.0318	1.9634	2.0849	.52333	.50476	.49534

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4762.0	60193.	7056.2
Stddev	33.8	70.	1.8
%RSD	.70916	.11637	.02509

#1	4785.9	60242.	7055.0
#2	4738.1	60143.	7057.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00029	.00051	.01014	.26499	.01384	.00004	.00090	127.12	.00003
Stddev	.00100	.00039	.00064	.00170	.00018	.00007	.00026	.01	.00003
%RSD	337.79	77.538	6.3407	.64325	1.2903	149.48	29.303	.01137	87.724

#1	.00100	.00079	.01059	.26620	.01371	.00009	.00108	127.11	.00006
#2	-.00041	.00023	.00968	.26379	.01397	.00000	.00071	127.13	.00001

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00036	.00011	.00025	.22126	7.0623	.05948	92.895	.05000	-.00533
Stddev	.00006	.00025	.00015	.00427	.0123	.00172	.121	.00004	.00011
%RSD	15.632	218.16	60.116	1.9320	.17448	2.8877	.12987	.07347	2.0840

#1	-.00040	.00029	.00014	.22428	7.0710	.06070	92.809	.04997	-.00540
#2	-.00032	-.00006	.00036	.21824	7.0535	.05827	92.980	.05002	-.00525

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	96.049	.00132	.00580	F -.01209	117.22	-.00776	.01020	7.5517	16.161
Stddev	.318	.00044	.00151	.00076	.17	.00152	.00482	.1017	.218
%RSD	.33106	33.617	26.082	6.3042	.14555	19.534	47.256	1.3472	1.3472

#1	96.274	.00163	.00687	-.01263	117.34	-.00883	.01361	7.6236	16.315
#2	95.824	.00101	.00473	-.01155	117.09	-.00669	.00679	7.4797	16.007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass				
High Limit				200.00					
Low Limit				-.00600					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00041	2.2132	-.00045	-.00068	.01137	-.02972	-.00019	.00222	-.00207
Stddev	.00003	.0043	.00165	.00020	.00039	.00153	.00012	.00053	.00113
%RSD	6.7372	.19186	363.58	28.684	3.4443	5.1508	64.396	24.006	54.790

#1	-.00043	2.2162	-.00162	-.00082	.01165	-.02864	-.00027	.00184	-.00127
#2	-.00039	2.2102	.00071	-.00055	.01109	-.03081	-.00010	.00259	-.00287

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4691.9	58740.	6857.9
Stddev	5.2	126.	33.6
%RSD	.10990	.21509	.49045

#1	4695.6	58829.	6834.1
#2	4688.3	58651.	6881.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00042	-.00041	.00584	.05371	.00278	-.00005	.00362	26.441	-.00026
Stddev	.00003	.00018	.00142	.00045	.00015	.00008	.00082	.088	.00016
%RSD	7.9514	44.183	24.322	.83314	5.3147	159.16	22.652	.33406	60.178

#1	.00044	-.00054	.00684	.05403	.00288	-.00010	.00304	26.503	-.00015
#2	.00040	-.00029	.00483	.05340	.00267	.00001	.00420	26.378	-.00037

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00002	-.00014	.00007	.04712	1.6667	.01619	19.131	.01046	-.00280
Stddev	.00018	.00011	.00037	.00304	.0264	.00133	.061	.00005	.00002
%RSD	726.42	79.189	532.75	6.4471	1.5864	8.2101	.32025	.52283	.53670

#1	-.00010	-.00022	.00033	.04927	1.6480	.01525	19.175	.01049	-.00281
#2	.00015	-.00006	-.00019	.04497	1.6854	.01713	19.088	.01042	-.00279

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	20.548	.00102	.00182	W -.00401	22.672	-.00400	.00432	1.5555	3.3288
Stddev	.060	.00083	.00157	.00076	.228	.00095	.00148	.0239	.0510
%RSD	.28989	81.313	86.399	18.914	1.0047	23.764	34.342	1.5334	1.5334

#1	20.590	.00043	.00071	-.00454	22.833	-.00332	.00327	1.5386	3.2927
#2	20.506	.00160	.00293	-.00347	22.511	-.00467	.00537	1.5724	3.3649

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.00300					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00139	.45895	-.00087	-.00057	.00325	.02780	-.00012	.00131	-.00129
Stddev	.00061	.00055	.00034	.00026	.00156	.02380	.00015	.00017	.00314
%RSD	43.989	.11933	39.581	45.688	48.206	85.627	124.44	12.886	242.88

#1	-.00096	.45933	-.00111	-.00038	.00214	.04462	-.00001	.00143	.00093
#2	-.00182	.45856	-.00063	-.00075	.00435	.01097	-.00022	.00119	-.00352

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4824.2	59996.	6789.4
Stddev	3.8	97.	7.4
%RSD	.07815	.16164	.10861

#1	4821.5	59928.	6784.2
#2	4826.8	60065.	6794.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05650	2.1036	1.0398	1.3373	1.9935	.04708	F 2.0255	175.64	.10346
Stddev	.00001	.0066	.0015	.0022	.0113	.00017	.0053	.49	.00021
%RSD	.02608	.31547	.14392	.16635	.56761	.37105	.25960	.28175	.20519

#1	.05649	2.0989	1.0409	1.3357	1.9855	.04696	2.0292	175.29	.10361
#2	.05651	2.1083	1.0387	1.3388	2.0015	.04721	2.0218	175.99	.10331

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50030	W .19593	.25700	1.1408	61.277	1.0832	149.00	.56689	.99740
Stddev	.00077	.00008	.00062	.0031	.152	.0100	.02	.00024	.00092
%RSD	.15323	.03925	.24257	.27206	.24768	.92624	.01041	.04312	.09189

#1	.49976	.19588	.25744	1.1386	61.169	1.0761	148.99	.56706	.99805
#2	.50084	.19599	.25656	1.1430	61.384	1.0903	149.01	.56671	.99675

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	149.93	.50152	W 11.309	.48804	122.88	.51422	2.1573	17.351	37.131
Stddev	.59	.00034	.002	.00160	.09	.00292	.0137	.005	.012
%RSD	.39672	.06780	.01912	.32778	.07313	.56789	.63641	.03151	.03151

#1	149.51	.50128	11.310	.48690	122.82	.51215	2.1476	17.347	37.123
#2	150.35	.50176	11.307	.48917	122.95	.51628	2.1670	17.355	37.139

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9290	3.2546	.98546	1.0395	1.8534	2.0853	.52800	.50489	.49019
Stddev	.0135	.0141	.00221	.0020	.0214	.0045	.00010	.00180	.00359
%RSD	.70209	.43231	.22465	.19585	1.1561	.21764	.01971	.35694	.73168

#1	1.9194	3.2446	.98390	1.0381	1.8383	2.0885	.52808	.50616	.48766
#2	1.9386	3.2645	.98703	1.0409	1.8686	2.0821	.52793	.50361	.49273

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4587.1	57018.	6798.4
Stddev	7.0	41.	31.3
%RSD	.15192	.07104	.46009

#1	4592.0	56989.	6776.3
#2	4582.2	57047.	6820.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05677	2.0915	1.0289	1.3261	2.0032	.04726	F 2.0100	174.53	.10271
Stddev	.00083	.0014	.0019	.0074	.0084	.00021	.0103	.55	.00030
%RSD	1.4583	.06602	.18553	.55544	.41968	.44352	.51286	.31385	.29077

#1	.05736	2.0905	1.0302	1.3209	1.9973	.04711	2.0027	174.15	.10250
#2	.05619	2.0925	1.0275	1.3314	2.0092	.04741	2.0173	174.92	.10292

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48970	W .19351	.25640	1.1439	61.357	1.0924	147.14	.56176	.98522
Stddev	.00122	.00093	.00009	.0034	.170	.0014	.09	.00021	.00415
%RSD	.24972	.47969	.03623	.29536	.27772	.12951	.06043	.03772	.42079

#1	.49057	.19285	.25633	1.1416	61.237	1.0934	147.21	.56161	.98815
#2	.48884	.19416	.25646	1.1463	61.478	1.0914	147.08	.56191	.98229

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	149.53	.49559	W 11.275	.48163	121.58	.50987	2.1369	17.201	36.810
Stddev	.52	.00238	.021	.00274	.01	.00170	.0103	.118	.253
%RSD	.34599	.47974	.19035	.56930	.00973	.33404	.48038	.68854	.68854

#1	149.17	.49391	11.290	.47969	121.59	.50866	2.1296	17.117	36.631
#2	149.90	.49727	11.260	.48357	121.57	.51107	2.1441	17.285	36.989

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.8871	3.2431	.98196	1.0293	1.8314	2.0495	.52497	.49801	.49344
Stddev	.0049	.0099	.00296	.0019	.0145	.0242	.00122	.00031	.00207
%RSD	.25730	.30622	.30167	.18661	.79384	1.1794	.23195	.06271	.41865

#1	1.8836	3.2361	.97986	1.0307	1.8211	2.0666	.52583	.49823	.49197
#2	1.8905	3.2501	.98405	1.0279	1.8417	2.0324	.52411	.49779	.49490

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4602.2	57289.	6764.0
Stddev	8.1	107.	68.6
%RSD	.17637	.18717	1.0136

#1	4596.4	57364.	6812.5
#2	4607.9	57213.	6715.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05559	1.0751	.21969	.36783	.11234	.04764	-.00183	143.94	.05315
Stddev	.00060	.0002	.00362	.00100	.00074	.00004	.00029	.45	.00046
%RSD	1.0827	.01927	1.6485	.27069	.66267	.08414	15.873	.31592	.87222

#1	.05602	1.0750	.21713	.36854	.11182	.04767	-.00204	143.61	.05348
#2	.05516	1.0752	.22225	.36713	.11287	.04761	-.00163	144.26	.05283

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04948	.04873	.05158	1.1497	28.563	.16296	113.41	.10051	.04508
Stddev	.00010	.00006	.00014	.0010	.011	.00046	.36	.00027	.00061
%RSD	.19218	.12630	.26838	.09128	.03892	.28003	.31871	.26633	1.3624

#1	.04955	.04877	.05167	1.1504	28.555	.16264	113.16	.10032	.04551
#2	.04941	.04868	.05148	1.1489	28.571	.16328	113.67	.10069	.04464

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	116.64	.05142	W 2.2936	.08938	116.32	.09590	.22520	12.244	26.202
Stddev	.39	.00008	.0142	.00051	.26	.00386	.00137	.068	.146
%RSD	.33486	.15736	.61988	.57438	.22223	4.0252	.61037	.55827	.55827

#1	116.36	.05148	2.3037	.08974	116.51	.09317	.22617	12.196	26.099
#2	116.92	.05137	2.2836	.08902	116.14	.09863	.22423	12.292	26.306

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09545	2.2536	.19390	.05145	.19710	.50518	.05263	.21650	.04993
Stddev	.00081	.0030	.00012	.00015	.00088	.03437	.00045	.00096	.00092
%RSD	.85211	.13136	.06157	.28575	.44864	6.8035	.85559	.44446	1.8481

#1	.09603	2.2515	.19381	.05134	.19773	.48087	.05294	.21718	.05058
#2	.09487	2.2557	.19398	.05155	.19648	.52948	.05231	.21582	.04927

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4707.0	58464.	6827.4
Stddev	31.1	29.	49.9
%RSD	.66074	.04969	.73105

#1	4729.0	58443.	6862.7
#2	4685.0	58485.	6792.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00031	.02989	.06383	.61774	1.7661	-0.0005	-0.00226	308.21	-0.00026
Stddev	.00019	.00005	.00142	.00010	.0043	.00007	.00226	1.66	.00011
%RSD	60.532	.15967	2.2272	.01661	.24523	154.34	100.01	.53885	42.615

#1	.00045	.02992	.06282	.61766	1.7631	-0.0010	-0.00066	307.04	-0.00034
#2	.00018	.02985	.06483	.61781	1.7692	.00000	-0.00385	309.39	-0.00018

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00117	.00039	.07177	54.873	17.550	.10162	141.92	1.1320	-0.0622
Stddev	.00030	.00022	.00106	.382	.122	.00226	.19	.0011	.00019
%RSD	25.744	55.777	1.4728	.69695	.69628	2.2191	.13488	.09577	2.9896

#1	-0.00095	.00055	.07102	54.602	17.463	.10003	141.78	1.1312	-0.0635
#2	-0.00138	.00024	.07251	55.143	17.636	.10321	142.05	1.1328	-0.0609

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	231.14	.05419	.30464	F -.01181	9.8719	-0.00449	.01869	22.839	48.875
Stddev	.96	.00091	.00249	.00168	.1019	.00384	.00153	.046	.099
%RSD	.41682	1.6797	.81806	14.200	1.0323	85.405	8.1807	.20171	.20171

#1	230.46	.05483	.30640	-.01300	9.9440	-0.00721	.01761	22.806	48.805
#2	231.82	.05354	.30287	-.01063	9.7998	-0.00178	.01977	22.871	48.944

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass				
High Limit				200.00					
Low Limit				-0.00600					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00016	2.3700	-0.00028	.00026	.01351	-0.03749	.00585	.08376	.00401
Stddev	.00014	.0072	.00035	.00037	.00103	.01535	.00009	.00148	.00142
%RSD	90.674	.30269	122.91	141.96	7.6617	40.956	1.5962	1.7651	35.510

#1	.00006	2.3649	-0.00004	.00052	.01424	-.04834	.00579	.08480	.00300
#2	.00026	2.3751	-0.00052	.00000	.01277	-0.02663	.00592	.08271	.00502

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4598.9	56864.	6878.5
Stddev	12.2	66.	55.7
%RSD	.26439	.11539	.81012

#1	4590.3	56818.	6917.9
#2	4607.5	56911.	6839.1

Sample Name: 280-70493-d-3-b Acquired: 6/16/2015 20:12:47 Type: Unk
 Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment: 281519 6010C

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00054	.02745	.02780	.37500	.60781	-.00001	.00104	166.60	-.00011
Stddev	.00007	.00001	.00014	.00030	.00010	.00002	.00031	.18	.00011
%RSD	12.842	.02596	.49257	.08127	.01593	274.31	29.550	.10645	105.65

#1	.00049	.02746	.02770	.37478	.60774	.00001	.00126	166.72	-.00003
#2	.00059	.02745	.02790	.37521	.60788	-.00003	.00082	166.47	-.00019

Check ?
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00096	.00053	.00792	19.013	11.063	.04059	55.233	1.5422	-.00536
Stddev	.00014	.00012	.00040	.052	.024	.00048	.114	.0024	.00050
%RSD	14.919	22.537	5.0859	.27459	.21674	1.1738	.20676	.15391	9.3005

#1	.00107	.00062	.00821	19.050	11.046	.04093	55.313	1.5439	-.00571
#2	.00086	.00045	.00764	18.976	11.080	.04025	55.152	1.5405	-.00500

Check ?
 High Limit
 Low Limit

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	79.728	.02498	.23607	F -.01264	12.618	-.00442	.01273	12.271	26.260
Stddev	.242	.00009	.00052	.00041	.021	.00018	.00076	.026	.056
%RSD	.30353	.34934	.22034	3.2239	.16946	4.0962	6.0031	.21337	.21337

#1	79.900	.02504	.23644	-.01292	12.603	-.00455	.01219	12.290	26.300
#2	79.557	.02492	.23570	-.01235	12.633	-.00429	.01327	12.253	26.221

Check ?
 High Limit
 Low Limit

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00071	.93908	-.00199	.00053	.01072	-.00743	.00482	.03184	.00161
Stddev	.00042	.00130	.00197	.00007	.00005	.01815	.00041	.00050	.00027
%RSD	59.520	.13886	99.046	13.011	.42195	244.40	8.5247	1.5859	16.573

#1	-.00041	.94001	-.00338	.00058	.01075	-.02026	.00453	.03148	.00179
#2	-.00100	.93816	-.00059	.00048	.01069	.00541	.00512	.03220	.00142

Check ?
 High Limit
 Low Limit

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4861.3	60386.	7064.4
Stddev	5.9	57.	3.4
%RSD	.12041	.09388	.04754

#1	4857.2	60426.	7062.0
#2	4865.4	60346.	7066.7

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00045	48.383	.00209	.00225	.00052	.00010	.99668	.01658	.00009	-.00138	.00063
Stddev	.00089	.290	.00065	.00024	.00018	.00014	.00033	.00366	.00002	.00019	.00005
%RSD	197.19	.59909	30.791	10.831	34.829	133.33	.03346	22.056	17.148	14.139	7.9194

#1	-.00018	48.178	.00164	.00242	.00065	.00020	.99692	.01917	.00010	-.00124	.00059
#2	.00107	48.588	.00255	.00207	.00039	.00001	.99645	.01400	.00008	-.00151	.00066

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00452	45.976	.46720	.00719	.01088	-.00227	-.00051	247.56	.00216	.00664	.00044
Stddev	.00055	.658	.05398	.00021	.01008	.00002	.00014	1.28	.00022	.00088	.00142
%RSD	12.126	1.4322	11.555	2.9053	92.696	.92606	28.649	.51630	9.9998	13.296	326.26

#1	.00413	45.511	.50537	.00734	.00375	-.00228	-.00061	246.66	.00200	.00601	.00144
#2	.00490	46.442	.42902	.00704	.01801	-.00225	-.00040	248.47	.00231	.00726	-.00057

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4.6712	.00000	-.00227	-.00541	-.01157	-.00580	.00052	4.9496	-.00001	.00008	W 10.744
Stddev	.0468	.0003	.00439	.00776	.01660	.00066	.00010	.0142	.00013	.00109	.019
%RSD	1.0028	21839.	193.52	143.49	143.49	11.430	18.631	.28771	2511.2	1385.4	.18063

#1	4.7043	.00019	-.00537	.00008	.00017	-.00627	.00059	4.9597	-.00010	.00085	10.758
#2	4.6381	-.00019	.00084	-.01089	-.02331	-.00533	.00045	4.9396	.00009	-.00069	10.731

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value	5.0000										10.000
Range	-5.0000%										5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00317	.00082	.00061
Stddev	.00008	.00027	.00811
%RSD	2.4393	32.990	1339.5

#1	.00311	.00101	-.00513
#2	.00322	.00063	.00634

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4788.8	58967.	6907.0
Stddev	22.5	405.	71.9
%RSD	.47012	.68736	1.0409

#1	4772.9	58681.	6957.8
#2	4804.8	59254.	6856.1

Sample Name: CCV-3333645 Acquired: 6/16/2015 20:17:58 Type: QC

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.53570	F .55837	.98905	.51270	.49056	.47113	-.00030	4.6589	.50298	.50821	.47818	.51327
Stddev	.00050	.00064	.00205	.00075	.00047	.00037	.00206	.0122	.00040	.00050	.00004	.00255
%RSD	.09263	.11379	.20770	.14724	.09648	.07787	682.34	.26140	.08038	.09793	.00799	.49705

#1	.53535	.55792	.99050	.51216	.49090	.47139	.00115	4.6675	.50269	.50856	.47820	.51147
#2	.53606	.55882	.98760	.51323	.49023	.47088	-.00176	4.6503	.50326	.50786	.47815	.51508

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass				
Value		.50000										
Range		10.490%										

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.3185	51.657	1.0092	21.023	.51838	.48702	5.3228	.51692	1.0497	1.0477	.03446	1.0134
Stddev	.0052	.277	.0025	.008	.00010	.00114	.0153	.00883	.0013	.0050	.00218	.0081
%RSD	.22298	.53529	.25125	.03627	.01991	.23475	.28761	1.7083	.12794	.47662	6.3297	.80248

#1	2.3148	51.853	1.0110	21.018	.51831	.48783	5.3336	.52317	1.0506	1.0513	.03600	1.0191
#2	2.3221	51.462	1.0074	21.028	.51845	.48621	5.3120	.51068	1.0487	1.0442	.03291	1.0076

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.99322	4.6646	9.9822	.96191	.49022	-.00261	.51518	.98685	.03720	.52734	.50325	.49448
Stddev	.00648	.0358	.0767	.00611	.00064	.00169	.00021	.00692	.00854	.00305	.00085	.00867
%RSD	.65228	.76830	.76830	.63542	.12975	64.650	.04035	.70135	22.970	.57798	.16907	1.7529

#1	.99780	4.6393	9.9280	.96623	.49067	-.00142	.51503	.99175	.03116	.52949	.50265	.48835
#2	.98864	4.6899	10.036	.95759	.48977	-.00381	.51532	.98196	.04324	.52518	.50385	.50061

Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass				
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4930.3	61201.	7081.7
Stddev	11.7	233.	70.2
%RSD	.23755	.38014	.99091

#1	4938.6	61365.	7032.0
#2	4922.1	61036.	7131.3

Sample Name: CCB Acquired: 6/16/2015 20:20:23 Type: QC
 Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0062	.00012	.00302	.00055	-0.00029	-0.00002	.00239	-0.00480	-0.00024	.00021	.00003	-0.00031	-0.00291
Stddev	.00030	.00014	.00420	.00027	.00015	.00008	.00070	.00168	.00013	.00026	.00010	.00016	.00127
%RSD	47.572	121.18	139.22	50.170	54.322	394.42	29.275	34.934	54.339	122.65	280.82	51.059	43.600
#1	-0.0083	.00002	.00005	.00035	-0.0018	.00004	.00190	-.00361	-.00015	.00003	-.00003	-.00020	-.00201
#2	-0.0041	.00022	.00599	.00074	-0.0039	-0.00008	.00289	-.00598	-.00034	.00039	.00010	-.00042	-.00381

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.32498	.00546	-0.00050	-0.00007	-0.00005	.18182	.00042	-0.00105	-0.00125	.02093	-0.00170	.00036	-0.00102
Stddev	.00379	.00043	.00311	.00002	.00020	.00036	.00004	.00117	.00052	.00417	.00148	.00329	.00478
%RSD	1.1650	7.7784	621.67	27.459	362.35	.19656	8.3655	110.97	41.467	19.940	86.948	904.51	469.30
#1	.32230	.00576	-.00270	-.00008	.00009	.18208	.00045	-.00023	-.00162	.02388	-.00275	.00269	-.00440
#2	.32765	.00516	.00170	-.00005	-.00019	.18157	.00040	-.00187	-.00088	.01798	-.00066	-.00196	.00236

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00218	-0.00092	.00007	-0.00011	-0.00052	.00016	.00535	.00019	.00036	-0.00083
Stddev	.01022	.00013	.00007	.00018	.00015	.00066	.00084	.00044	.00029	.00077
%RSD	469.30	14.341	94.426	161.14	28.016	398.48	15.702	231.24	80.365	92.701
#1	-.00941	-.00082	.00002	.00002	-.00042	-.00030	.00595	-.00012	.00057	-.00028
#2	.00505	-.00101	.00012	-.00023	-.00063	.00063	.00476	.00050	.00016	-.00137

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5007.7	61921.	6982.7
Stddev	2.5	50.	40.0
%RSD	.04996	.08146	.57317
#1	5009.4	61885.	7011.0
#2	5005.9	61957.	6954.4

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01142	.11941	.01856	.10658	.00975	.00098	.11676	.19534	.00501	.01113	.01022	.01511
Stddev	.00035	.00017	.00212	.00005	.00011	.00003	.00119	.00468	.00013	.00011	.00002	.00012
%RSD	3.0862	.13962	11.438	.04999	1.1178	2.8291	1.0187	2.3946	2.5769	.99873	.15010	.80009

#1	.01167	.11929	.02006	.10654	.00982	.00096	.11592	.19203	.00492	.01105	.01023	.01503
#2	.01117	.11952	.01706	.10661	.00967	.00100	.11760	.19865	.00510	.01121	.01021	.01520

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09523	3.5171	F .01383	.23326	.01096	.01930	1.2430	.04470	3.2001	.00910	.01710	F .00698
Stddev	.00001	.0309	.00017	.00374	.00008	.00012	.0291	.00019	.0028	.00083	.00024	.00064
%RSD	.01104	.87949	1.1990	1.6039	.75983	.60344	2.3375	.42749	.08644	9.0927	1.3923	9.2281

#1	.09522	3.4953	.01395	.23591	.01090	.01921	1.2225	.04483	3.2021	.00969	.01727	.00652
#2	.09523	3.5390	.01371	.23062	.01102	.01938	1.2636	.04456	3.1982	.00852	.01694	.00743

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Fail						
Value			.01000									.01000
Range			30.000%									-30.000%

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01700	.46696	.99930	.10022	.01045	.01450	.00996	.01585	.06660	.01087	.02369	.01269
Stddev	.00093	.01227	.02626	.00040	.00008	.00091	.00002	.00160	.02834	.00023	.00028	.00277
%RSD	5.4555	2.6282	2.6282	.39863	.72872	6.2893	.22885	10.094	42.554	2.1412	1.1767	21.797

#1	.01765	.45828	.98072	.10050	.01040	.01514	.00994	.01698	.04656	.01103	.02349	.01073
#2	.01634	.47564	1.0179	.09994	.01050	.01385	.00998	.01472	.08664	.01070	.02389	.01465

Check ?	Chk Pass											
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5033.1	62203.	7029.8
Stddev	6.2	549.	25.7
%RSD	.12320	.88183	.36513

#1	5028.7	61816.	7048.0
#2	5037.5	62591.	7011.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00048	.23313	.01147	.08632	.06345	.00002	.00283	56.268	-.00041
Stddev	.00020	.00095	.00347	.00009	.00018	.00004	.00084	.279	.00009
%RSD	40.704	.40877	30.277	.10478	.28074	190.27	29.765	.49654	21.113

#1	.00062	.23381	.00902	.08625	.06333	-.00001	.00343	56.071	-.00035
#2	.00035	.23246	.01393	.08638	.06358	.00005	.00223	56.466	-.00047

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00118	.00028	.00291	.64474	10.313	.00641	4.3840	.17572	-.00131
Stddev	.00022	.00001	.00013	.00216	.009	.00087	.0008	.00002	.00021
%RSD	18.223	3.2392	4.5654	.33489	.09147	13.534	.01728	.01033	16.345

#1	.00133	.00028	.00300	.64321	10.306	.00580	4.3845	.17574	-.00116
#2	.00103	.00029	.00282	.64627	10.320	.00702	4.3834	.17571	-.00146

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.940	.00504	.03958	F -.00707	29.367	-.00492	.00604	1.7306	3.7035
Stddev	.002	.00040	.00052	.00112	.085	.00302	.00101	.0028	.0059
%RSD	.01106	8.0097	1.3236	15.897	.29080	61.443	16.660	.16049	.16049

#1	13.941	.00475	.03921	-.00787	29.427	-.00706	.00533	1.7287	3.6993
#2	13.939	.00533	.03995	-.00628	29.306	-.00278	.00675	1.7326	3.7077

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass				
High Limit				200.00					
Low Limit				-.00600					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00052	.24769	-.00082	.01366	.00769	-.01592	.00129	.02222	.00137
Stddev	.00007	.00110	.00254	.00033	.00200	.01015	.00029	.00070	.00148
%RSD	12.615	.44403	309.07	2.4167	26.067	63.742	22.181	3.1623	107.98

#1	-.00047	.24691	.00097	.01343	.00911	-.00875	.00150	.02272	.00032
#2	-.00057	.24847	-.00262	.01390	.00627	-.02310	.00109	.02172	.00241

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	5045.9	62634.	7163.4
Stddev	11.9	66.	32.7
%RSD	.23603	.10512	.45604

#1	5054.4	62588.	7186.5
#2	5037.5	62681.	7140.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00058	.02126	.01360	.68554	.24282	-.00005	.00045	262.54	-.00006
Stddev	.00000	.00039	.00118	.00174	.00057	.00008	.00027	1.36	.00019
%RSD	.66273	1.8258	8.6871	.25439	.23628	145.30	59.672	.51937	338.24

#1	.00058	.02153	.01444	.68678	.24322	-.00011	.00063	263.50	.00008
#2	.00058	.02098	.01277	.68431	.24241	.00000	.00026	261.57	-.00019

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00014	-.00060	.00656	.19101	45.901	.01415	91.078	.63059	.00698
Stddev	.00020	.00034	.00026	.00021	.060	.00188	.176	.00030	.00013
%RSD	141.94	57.185	3.9614	.11082	.13172	13.299	.19376	.04792	1.8861

#1	-.00028	-.00035	.00675	.19086	45.944	.01548	90.953	.63038	.00707
#2	.00000	-.00084	.00638	.19116	45.859	.01282	91.203	.63080	.00689

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 792.69	.00403	.02991	F -.01570	F 208.94	-.00406	.01242	2.4624	5.2695
Stddev	4.17	.00034	.00063	.00033	.87	.00304	.00315	.0126	.0269
%RSD	.52573	8.4947	2.1085	2.1177	.41651	74.948	25.399	.50997	.50997

#1	795.63	.00427	.02946	-.01547	209.56	-.00621	.01465	2.4712	5.2885
#2	789.74	.00379	.03036	-.01594	208.33	-.00191	.01019	2.4535	5.2505

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00			200.00	200.00				
Low Limit	11.000			-.00600	-.20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00267	2.5844	-.00299	.00041	.01456	-.00378	-.00070	.00775	-.00106
Stddev	.00009	.0089	.00217	.00033	.00077	.01299	.00076	.00027	.00184
%RSD	3.3999	.34619	72.487	80.357	5.3102	343.75	108.46	3.5482	173.87

#1	-.00261	2.5907	-.00146	.00065	.01402	-.01296	-.00124	.00755	.00024
#2	-.00274	2.5781	-.00452	.00018	.01511	.00540	-.00016	.00794	-.00236

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4486.3	54883.	6919.9
Stddev	1.7	224.	51.7
%RSD	.03761	.40899	.74670

#1	4485.1	55042.	6883.3
#2	4487.4	54724.	6956.4

Sample Name: 280-70537-e-3-b Acquired: 6/16/2015 20:30:48 Type: Unk

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: Custom ID2: Custom ID3:

Comment: 281519 6010C

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00033	.31156	.01453	.35644	.23275	.00002	.00242	194.82	-.00026
Stddev	.00012	.00063	.00228	.00209	.00004	.00004	.00013	3.15	.00012
%RSD	35.522	.20355	15.694	.58701	.01658	277.96	5.2042	1.6157	45.006

#1	.00025	.31201	.01614	.35792	.23273	-.00001	.00251	197.04	-.00034
#2	.00042	.31111	.01292	.35496	.23278	.00005	.00233	192.59	-.00018

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00071	.00035	.01459	.47280	30.386	.01007	32.423	1.2366	-.00255
Stddev	.00004	.00029	.00072	.00400	.059	.00067	.017	.0010	.00021
%RSD	5.5301	83.067	4.9434	.84670	.19362	6.6974	.05187	.07802	8.1717

#1	.00068	.00055	.01408	.47563	30.344	.01055	32.435	1.2373	-.00241
#2	.00074	.00014	.01510	.46997	30.428	.00959	32.411	1.2359	-.00270

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	261.86	.00567	.10674	F -.01338	150.54	-.00604	.01149	2.9869	6.3919
Stddev	.28	.00015	.00006	.00099	.21	.00162	.00207	.0149	.0319
%RSD	.10547	2.5878	.05374	7.4048	.13658	26.856	18.008	.49922	.49922

#1	262.06	.00556	.10670	-.01408	150.68	-.00719	.01002	2.9974	6.4145
#2	261.67	.00577	.10678	-.01268	150.39	-.00489	.01295	2.9763	6.3694

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass				
High Limit				200.00					
Low Limit				-.00600					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00171	1.0404	-.00136	.02158	.01152	-.01502	.00083	.01010	-.00125
Stddev	.00045	.0001	.00021	.00038	.00061	.01675	.00077	.00035	.00129
%RSD	26.440	.01449	15.345	1.7718	5.2922	111.49	92.178	3.4885	103.14

#1	-.00203	1.0403	-.00121	.02131	.01109	-.02687	.00137	.00986	-.00216
#2	-.00139	1.0405	-.00151	.02185	.01195	-.00318	.00029	.01035	-.00034

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4749.8	58443.	7019.8
Stddev	15.8	244.	13.6
%RSD	.33347	.41765	.19327

#1	4761.0	58270.	7010.2
#2	4738.6	58615.	7029.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00058	.20241	.01408	.37463	.14317	-.00006	-.00185	243.37	.00038
Stddev	.00035	.00024	.00142	.00115	.00121	.00010	.00156	3.01	.00010
%RSD	60.099	.11791	10.106	.30614	.84515	171.50	84.713	1.2363	26.739

#1	.00033	.20258	.01308	.37544	.14232	.00001	-.00295	241.24	.00045
#2	.00083	.20224	.01509	.37382	.14403	-.00013	-.00074	245.50	.00031

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01663	.00029	.02119	.17482	35.869	.01957	25.306	.64665	-.00143
Stddev	.00003	.00063	.00014	.00021	.285	.00234	.060	.00002	.00025
%RSD	.17574	222.09	.65268	.12122	.79476	11.952	.23707	.00358	17.352

#1	.01661	-.00016	.02129	.17497	35.668	.01791	25.348	.64663	-.00126
#2	.01665	.00073	.02110	.17467	36.071	.02122	25.263	.64667	-.00161

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	68.368	.04647	.04945	F -.01514	F 200.25	-.00211	.01562	3.8055	8.1438
Stddev	.216	.00077	.00161	.00186	.68	.00091	.00068	.0076	.0164
%RSD	.31636	1.6477	3.2484	12.314	.34001	43.374	4.3759	.20106	.20106

#1	68.521	.04701	.05058	-.01646	200.73	-.00146	.01610	3.8001	8.1322
#2	68.215	.04593	.04831	-.01382	199.76	-.00275	.01513	3.8109	8.1554

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				200.00	200.00				
Low Limit				-.00600	-.20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00118	1.0818	-.00049	.00130	.01423	-.03503	.00085	.04270	-.00119
Stddev	.00030	.0072	.00027	.00025	.00028	.03656	.00050	.00017	.00007
%RSD	25.111	.66845	55.346	19.578	1.9836	104.39	58.588	.40347	5.6431

#1	-.00097	1.0767	-.00069	.00112	.01443	-.00917	.00050	.04283	-.00114
#2	-.00139	1.0869	-.00030	.00148	.01403	-.06088	.00121	.04258	-.00124

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4501.7	56256.	6853.6
Stddev	11.5	418.	121.2
%RSD	.25477	.74247	1.7679

#1	4509.9	55961.	6939.3
#2	4493.6	56551.	6767.9

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00087	48.937	.00438	.00261	.00064	.00016	.96536	.01595	-.00020	-.00106	.00054
Stddev	.00013	.141	.00074	.00029	.00017	.00001	.00067	.00042	.00022	.00013	.00028
%RSD	15.512	.28825	16.825	10.992	26.074	7.8656	.06985	2.6502	107.99	12.196	51.199

#1	.00077	49.037	.00490	.00281	.00052	.00015	.96583	.01625	-.00005	-.00096	.00074
#2	.00096	48.837	.00386	.00241	.00076	.00017	.96488	.01565	-.00036	-.00115	.00035

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00411	45.959	.48958	.00745	.00302	-.00234	-.00052	249.62	.00184	.00620	.00034
Stddev	.00008	.285	.03252	.00226	.00445	.00004	.00009	.29	.00005	.00015	.00153
%RSD	2.0213	.61987	6.6418	30.305	147.08	1.5196	17.279	.11674	2.9686	2.3869	451.31

#1	.00405	46.160	.46658	.00585	.00617	-.00236	-.00059	249.83	.00180	.00610	-.00074
#2	.00417	45.757	.51257	.00904	-.00012	-.00231	-.00046	249.41	.00187	.00631	.00142

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4.5812	-.00253	-.00315	-.01839	-.03936	-.00764	.00037	4.9792	-.00025	.00153	W 10.683
Stddev	.0178	.00040	.00305	.01025	.02193	.00017	.00013	.0022	.00044	.00095	.023
%RSD	.38834	15.867	96.857	55.705	55.705	2.2471	35.708	.04435	178.51	62.219	.21272

#1	4.5686	-.00225	-.00530	-.02564	-.05486	-.00752	.00046	4.9776	-.00055	.00086	10.699
#2	4.5938	-.00282	-.00099	-.01115	-.02386	-.00776	.00027	4.9807	.00006	.00220	10.667

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value	5.0000										10.000
Range	-5.0000%										5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00338	.00065	-.00298
Stddev	.00086	.00079	.00210
%RSD	25.529	121.60	70.520

#1	.00399	.00009	-.00149
#2	.00277	.00121	-.00446

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4650.8	56848.	6630.6
Stddev	24.1	335.	23.6
%RSD	.51762	.58963	.35599

#1	4667.8	57085.	6614.0
#2	4633.8	56611.	6647.3

Sample Name: CCV-3333645 Acquired: 6/16/2015 20:38:47 Type: QC

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52884	F .56538	.97841	.50101	.49336	.47432	.00098	4.7280	.49771	.51148	.48209	.50466
Stddev	.00129	.00051	.00795	.00612	.00194	.00099	.00192	.0198	.00190	.00148	.00035	.00093
%RSD	.24302	.09105	.81235	1.2206	.39337	.20816	196.77	.41930	.38230	.28859	.07262	.18496

#1	.52793	.56502	.98403	.50534	.49473	.47502	-.00038	4.7420	.49906	.51252	.48184	.50532
#2	.52975	.56574	.97279	.49669	.49199	.47362	.00234	4.7139	.49637	.51044	.48233	.50400

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass				
Value		.50000										
Range		10.490%										

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.3378	52.570	1.0211	21.372	.52705	.48527	5.4479	.52106	1.0333	1.0405	.05408	.97762
Stddev	.0045	.155	.0039	.063	.00033	.00055	.0355	.00119	.0058	.0033	.00148	.00618
%RSD	.19177	.29446	.38485	.29302	.06213	.11257	.65133	.22834	.55912	.31822	2.7412	.63173

#1	2.3410	52.680	1.0239	21.416	.52682	.48565	5.4730	.52190	1.0374	1.0429	.05512	.98199
#2	2.3347	52.461	1.0183	21.327	.52728	.48488	5.4228	.52022	1.0292	1.0382	.05303	.97325

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.96846	4.7604	10.187	.95776	.49331	-.00145	.52026	.97620	-.02285	.53380	.52023	.49823
Stddev	.00504	.0181	.039	.00133	.00162	.00120	.00162	.00607	.02012	.00592	.00310	.00294
%RSD	.52053	.38024	.38024	.13838	.32909	82.974	.31211	.62209	88.072	1.1095	.59590	.58942

#1	.97202	4.7476	10.160	.95870	.49445	-.00230	.52141	.98050	-.03708	.53799	.52243	.49615
#2	.96489	4.7732	10.215	.95683	.49216	-.00060	.51912	.97191	-.00862	.52961	.51804	.50030

Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass				
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4793.5	58480.	6582.4
Stddev	2.5	451.	41.2
%RSD	.05141	.77113	.62602

#1	4795.2	58162.	6553.3
#2	4791.7	58799.	6611.6

Sample Name: CCB Acquired: 6/16/2015 20:41:12 Type: QC
 Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00035	-.00009	.00326	.00041	-.00005	-.00001	.00421	-.00667	-.00017	.00000	-.00001	-.00115	-.00217
Stddev	.00024	.00012	.00078	.00063	.00006	.00004	.00059	.00281	.00008	.00009	.00005	.00042	.00002
%RSD	69.351	124.99	23.982	152.64	118.05	510.78	14.103	42.050	44.178	3762.9	541.71	36.539	.94636

#1	.00052	-.00001	.00271	-.00003	-.00009	.00002	.00463	-.00469	-.00023	-.00006	.00002	-.00145	-.00218
#2	.00018	-.00017	.00382	.00086	-.00001	-.00003	.00379	-.00866	-.00012	.00006	-.00004	-.00085	-.00215

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.22650	.00237	.00372	-.00004	-.00029	.23194	.00047	.00060	-.00018	.03816	-.00276	-.00081	-.00121
Stddev	.02557	.00141	.00263	.00006	.00021	.01015	.00029	.00009	.00040	.00314	.00223	.00185	.02081
%RSD	11.289	59.306	70.698	174.22	70.361	4.3747	60.689	15.356	220.84	8.2352	80.699	227.51	1716.3

#1	.24458	.00138	.00558	.00001	-.00015	.23911	.00068	.00067	.00010	.03593	-.00118	-.00212	-.01593
#2	.20842	.00337	.00186	-.00008	-.00044	.22476	.00027	.00054	-.00046	.04038	-.00433	.00050	.01350

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00260	-.00016	.00002	.00054	-.00052	.00133	.00144	.00058	.00031	-.00206
Stddev	.04454	.00051	.00005	.00069	.00028	.00003	.00542	.00105	.00045	.00063
%RSD	1716.3	321.11	288.51	127.50	54.107	1.9458	376.14	180.57	142.99	30.374

#1	-.03409	.00020	-.00002	.00102	-.00071	.00131	.00527	-.00016	.00000	-.00162
#2	.02890	-.00052	.00005	.00005	-.00032	.00135	-.00239	.00132	.00063	-.00251

Check ?	Chk Pass									
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4906.8	60104.	6640.1
Stddev	9.9	40.	34.5
%RSD	.20239	.06605	.52016

#1	4899.8	60076.	6664.6
#2	4913.9	60132.	6615.7

Sample Name: CCVL-33336700 Acquired: 6/16/2015 20:43:33 Type: QC

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01222	.12134	.01916	.10350	.00999	.00089	.11413	.19943	.00503	.01106	.01034	.01514	.09303	3.5239
Stddev	.00054	.00071	.00174	.00122	.00046	.00004	.00367	.00146	.00032	.00008	.00008	.00001	.00089	.0518
%RSD	4.3888	.58606	9.0652	1.1775	4.6461	4.9510	3.2122	.73219	6.3075	.76666	.81433	.08625	.95806	1.4712

#1	.01184	.12084	.02039	.10264	.00966	.00086	.11154	.20047	.00480	.01100	.01028	.01513	.09240	3.5605
#2	.01260	.12185	.01793	.10436	.01032	.00092	.11672	.19840	.00525	.01112	.01040	.01515	.09366	3.4872

Check ?	Chk Pass													
Value														
Range														

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01186	.23357	.01106	.01914	1.2984	.04367	3.1424	.00922	.03229	.00862	.01306	.47869	1.0244	.09984
Stddev	.00156	.00069	.00002	.00009	.0126	.00011	.0366	.00044	.00241	.00281	.00094	.01876	.0401	.00032
%RSD	13.158	.29526	.15379	.47374	.97272	.24375	1.1642	4.7939	7.4615	32.616	7.1933	3.9181	3.9181	.32381

#1	.01075	.23309	.01108	.01921	1.2895	.04374	3.1165	.00953	.03059	.01061	.01373	.49196	1.0528	.09962
#2	.01296	.23406	.01105	.01908	1.3073	.04359	3.1683	.00891	.03400	.00663	.01240	.46543	.99602	.10007

Check ?	Chk Pass	None	Chk Pass											
Value														
Range														

Elem	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01043	.01564	.00988	.01648	.06284	.01144	.02396	.01415
Stddev	.00013	.00279	.00012	.00034	.02615	.00018	.00045	.00170
%RSD	1.2520	17.842	1.2477	2.0633	41.618	1.5774	1.8795	12.030

#1	.01034	.01762	.00997	.01672	.04434	.01131	.02428	.01295
#2	.01053	.01367	.00979	.01624	.08133	.01157	.02364	.01535

Check ?	Chk Pass							
Value								
Range								

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4907.2	60444.	6703.8
Stddev	9.3	612.	1.3
%RSD	.19049	1.0129	.01867

#1	4913.8	60011.	6702.9
#2	4900.5	60877.	6704.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00029	.00707	.00489	.00131	.00017	-.00001	.00353	.02175	-.00004
Stddev	.00020	.00002	.00007	.00018	.00009	.00003	.00176	.00076	.00016
%RSD	67.994	.23007	1.4692	14.048	51.098	666.12	49.890	3.4783	389.47

#1	.00043	.00706	.00484	.00118	.00011	.00002	.00229	.02229	.00007
#2	.00015	.00708	.00494	.00144	.00023	-.00003	.00478	.02122	-.00016

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00007	.00009	-.00041	.02539	.16789	.00368	-.00076	.00037	-.00030
Stddev	.00026	.00001	.00028	.00014	.01295	.00144	.00065	.00004	.00005
%RSD	378.09	13.127	68.341	.54308	7.7138	39.027	85.711	11.724	16.366

#1	.00025	.00008	-.00060	.02549	.17705	.00470	-.00122	.00040	-.00027
#2	-.00011	.00010	-.00021	.02529	.15873	.00267	-.00030	.00034	-.00034

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.18491	.00010	.00045	-.00035	.03610	-.00210	-.00084	.01511	.03234
Stddev	.00301	.00014	.00203	.00140	.00026	.00178	.00160	.01036	.02216
%RSD	1.6266	140.40	453.10	402.23	.72780	84.916	189.92	68.540	68.540

#1	.18278	.00020	.00188	-.00134	.03591	-.00336	.00029	.00779	.01667
#2	.18703	.00000	-.00099	.00064	.03628	-.00084	-.00198	.02243	.04801

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00063	.00007	.00188	-.00038	.00020	.00226	.00011	.00142	-.00041
Stddev	.00018	.00003	.00145	.00021	.00226	.01175	.00028	.00037	.00118
%RSD	27.960	38.178	77.221	54.303	1118.6	519.59	262.61	25.767	289.45

#1	-.00050	.00005	.00290	-.00053	.00180	.01057	.00030	.00168	-.00125
#2	-.00075	.00008	.00085	-.00024	-.00139	-.00605	-.00009	.00116	.00043

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4876.1	60386.	6667.6
Stddev	9.0	180.	8.2
%RSD	.18530	.29869	.12264

#1	4882.5	60258.	6661.8
#2	4869.7	60513.	6673.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05481	2.1519	.98399	1.0334	1.9796	.04763	2.0120	46.902	.09999
Stddev	.00023	.0086	.00099	.0037	.0022	.00003	.0093	.009	.00049
%RSD	.41091	.39882	.10050	.35812	.11069	.05932	.46096	.02016	.48817

#1	.05465	2.1579	.98469	1.0360	1.9812	.04765	2.0186	46.896	.10033
#2	.05497	2.1458	.98329	1.0308	1.9781	.04761	2.0055	46.909	.09964

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50351	F .19464	.25559	.92098	52.889	1.0220	52.812	.51940	.99025
Stddev	.00402	.00026	.00088	.00283	.053	.0018	.053	.00052	.00236
%RSD	.79897	.13264	.34367	.30736	.10082	.17937	.10105	.10032	.23867

#1	.50635	.19446	.25497	.92298	52.851	1.0233	52.775	.51903	.99192
#2	.50066	.19482	.25622	.91898	52.926	1.0207	52.850	.51976	.98858

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	52.270	.50647	10.556	.50033	1.8747	.49492	1.9967	9.4437	20.210
Stddev	.133	.00115	.038	.00448	.0043	.00224	.0233	.0344	.074
%RSD	.25379	.22748	.36280	.89623	.22794	.45225	1.1653	.36384	.36384

#1	52.176	.50728	10.583	.50350	1.8777	.49650	2.0131	9.4680	20.262
#2	52.364	.50565	10.529	.49716	1.8717	.49333	1.9802	9.4194	20.158

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9136	.98883	.98728	1.0350	1.9169	2.1277	.52689	.50059	.49028
Stddev	.0185	.00039	.00134	.0016	.0270	.0242	.00016	.00031	.00182
%RSD	.96856	.03910	.13607	.15701	1.4060	1.1378	.02997	.06238	.37074

#1	1.9268	.98910	.98823	1.0338	1.9360	2.1449	.52678	.50082	.49157
#2	1.9005	.98855	.98633	1.0361	1.8978	2.1106	.52700	.50037	.48900

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4691.8	58368.	6674.8
Stddev	14.5	148.	8.7
%RSD	.30956	.25284	.13009

#1	4702.0	58472.	6668.7
#2	4681.5	58263.	6680.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00072	.18103	.00777	.01270	.02162	.00004	-.00277	13.706	.00030
Stddev	.00004	.00021	.00170	.00009	.00001	.00005	.00254	.061	.00005
%RSD	6.0835	.11389	21.925	.71921	.06610	106.32	91.722	.44193	18.272

#1	.00069	.18088	.00897	.01277	.02163	.00001	-.00457	13.749	.00026
#2	.00075	.18117	.00657	.01264	.02161	.00008	-.00097	13.663	.00034

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00058	.00014	.00120	1.2820	3.6399	.00436	8.9624	.22011	.00032
Stddev	.00003	.00031	.00001	.0080	.0860	.00071	.0191	.00010	.00045
%RSD	5.4667	217.80	.93752	.62571	2.3627	16.277	.21334	.04717	140.61

#1	-.00060	.00037	.00120	1.2876	3.7007	.00386	8.9759	.22019	.00000
#2	-.00056	-.00008	.00121	1.2763	3.5790	.00486	8.9488	.22004	.00064

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.945	-.00006	.12933	W -.00471	1.3574	-.00173	.00505	20.651	44.193
Stddev	.080	.00021	.00174	.00082	.0318	.00006	.00072	.300	.642
%RSD	.67270	359.53	1.3482	17.428	2.3447	3.5911	14.262	1.4523	1.4523

#1	12.002	-.00021	.12809	-.00413	1.3349	-.00169	.00454	20.863	44.647
#2	11.888	.00009	.13056	-.00529	1.3799	-.00178	.00556	20.439	43.739

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.00300					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	.09918	-.00075	.00530	.00298	-.02304	.00086	.00599	.00212
Stddev	.00037	.00037	.00103	.00019	.00094	.00037	.00033	.00036	.00342
%RSD	474.60	.37382	136.51	3.6336	31.718	1.6023	38.555	5.9517	161.51

#1	.00018	.09944	-.00148	.00543	.00231	-.02330	.00110	.00574	.00454
#2	-.00034	.09891	-.00003	.00516	.00365	-.02278	.00063	.00624	-.00030

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4943.6	60651.	6757.7
Stddev	.9	26.	62.0
%RSD	.01793	.04313	.91714

#1	4944.3	60670.	6713.8
#2	4943.0	60633.	6801.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00034	.03959	.00584	.00300	.00452	.00003	.00037	2.9577	-.00019
Stddev	.00048	.00066	.00097	.00018	.00036	.00003	.00106	.0184	.00019
%RSD	141.35	1.6653	16.670	5.9683	8.0676	107.31	288.74	.62272	100.85

#1	.00068	.03912	.00515	.00313	.00478	.00001	.00111	2.9446	-.00033
#2	.00000	.04006	.00653	.00288	.00426	.00005	-.00038	2.9707	-.00006

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00023	-.00029	-.00025	.27428	.90823	.00297	1.9208	.04645	-.00049
Stddev	.00019	.00004	.00030	.00223	.03274	.00111	.0010	.00002	.00038
%RSD	80.117	13.558	120.35	.81297	3.6043	37.210	.05225	.03917	76.945

#1	-.00037	-.00032	-.00047	.27271	.88509	.00219	1.9215	.04644	-.00022
#2	-.00010	-.00026	-.00004	.27586	.93138	.00375	1.9201	.04647	-.00075

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.5941	.00059	.02793	-.00078	.30096	-.00077	-.00160	4.2167	9.0238
Stddev	.0104	.00000	.00004	.00202	.00376	.00056	.00100	.0323	.0692
%RSD	.40051	.33133	.12900	258.29	1.2490	73.437	62.701	.76641	.76641

#1	2.5868	.00059	.02790	-.00221	.30362	-.00116	-.00231	4.1939	8.9749
#2	2.6015	.00059	.02795	.00065	.29830	-.00037	-.00089	4.2396	9.0727

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00061	.02163	.00096	.00073	.00051	-.03244	-.00003	.00254	-.00192
Stddev	.00114	.00013	.00090	.00048	.00296	.04237	.00008	.00010	.00298
%RSD	186.48	.59507	93.943	66.028	578.28	130.62	267.76	4.0687	155.64

#1	.00020	.02154	.00160	.00107	.00260	-.06240	.00003	.00246	-.00402
#2	-.00142	.02172	.00032	.00039	-.00158	-.00248	-.00008	.00261	.00019

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4998.6	62328.	6868.9
Stddev	25.8	203.	44.3
%RSD	.51538	.32519	.64550

#1	5016.8	62472.	6900.2
#2	4980.4	62185.	6837.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05309	2.1762	.92392	.98724	1.8732	.04428	F 1.9166	56.820	.09449
Stddev	.00072	.0011	.00068	.00141	.0021	.00007	.0009	.134	.00011
%RSD	1.3556	.04863	.07359	.14240	.11270	.15734	.04653	.23557	.11926

#1	.05258	2.1769	.92440	.98824	1.8747	.04433	1.9173	56.915	.09441
#2	.05360	2.1754	.92344	.98625	1.8717	.04423	1.9160	56.725	.09457

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46484	W .18016	.23872	2.0307	52.949	.95819	57.079	.68766	.92503
Stddev	.00520	.00009	.00077	.0052	.029	.00096	.010	.00092	.00401
%RSD	1.1182	.04777	.32091	.25816	.05392	.10070	.01730	.13421	.43326

#1	.46852	.18010	.23926	2.0344	52.969	.95887	57.086	.68831	.92787
#2	.46117	.18022	.23818	2.0270	52.929	.95751	57.072	.68701	.92220

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	60.584	.46423	W 9.9611	.46245	3.1051	.46325	1.8783	28.250	60.455
Stddev	.403	.00413	.0042	.00054	.0041	.00473	.0148	.033	.071
%RSD	.66448	.88873	.04195	.11690	.13158	1.0218	.78811	.11694	.11694

#1	60.299	.46715	9.9641	.46207	3.1080	.46660	1.8888	28.273	60.505
#2	60.868	.46131	9.9582	.46283	3.1022	.45991	1.8678	28.227	60.405

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.7818	1.0173	.91914	.97046	1.8100	1.9304	.49213	.47117	.45741
Stddev	.0124	.0027	.00304	.00121	.0187	.0228	.00015	.00200	.00255
%RSD	.69334	.26214	.33036	.12460	1.0362	1.1795	.03048	.42472	.55769

#1	1.7906	1.0192	.92129	.97132	1.8232	1.9465	.49202	.46976	.45561
#2	1.7731	1.0155	.91699	.96961	1.7967	1.9143	.49223	.47259	.45922

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4711.2	58650.	6728.3
Stddev	3.6	134.	27.7
%RSD	.07683	.22827	.41189

#1	4708.7	58556.	6747.9
#2	4713.8	58745.	6708.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05594	2.3116	.98144	1.0385	1.9976	.04742	F 1.9956	60.378	.09951
Stddev	.00091	.0011	.00068	.0021	.0038	.00003	.0040	.004	.00039
%RSD	1.6274	.04881	.06976	.19764	.18997	.05522	.19808	.00694	.39270

#1	.05658	2.3124	.98192	1.0399	2.0003	.04740	1.9984	60.375	.09924
#2	.05529	2.3108	.98096	1.0370	1.9949	.04744	1.9928	60.381	.09979

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49657	W .19235	.25643	2.1559	56.264	1.0221	60.870	.73194	.98190
Stddev	.00269	.00019	.00039	.0029	.001	.0004	.252	.00137	.00187
%RSD	.54249	.09645	.15377	.13309	.00239	.03998	.41419	.18749	.19059

#1	.49848	.19222	.25671	2.1579	56.263	1.0218	61.048	.73291	.98322
#2	.49467	.19248	.25615	2.1539	56.265	1.0224	60.692	.73097	.98058

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	64.093	.49782	W 10.535	.48683	3.2065	.49166	1.9581	29.470	63.065
Stddev	.188	.00033	.002	.00038	.0071	.00085	.0013	.023	.050
%RSD	.29277	.06634	.02302	.07839	.22246	.17304	.06565	.07897	.07897

#1	63.960	.49759	10.534	.48656	3.2015	.49226	1.9572	29.486	63.100
#2	64.226	.49806	10.537	.48710	3.2115	.49106	1.9590	29.453	63.030

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.8745	1.0846	.98430	1.0363	1.8708	2.0576	.52492	.50217	.48589
Stddev	.0043	.0013	.00116	.0004	.0047	.0220	.00118	.00023	.00370
%RSD	.22730	.12177	.11789	.04195	.24963	1.0706	.22397	.04593	.76073

#1	1.8715	1.0855	.98348	1.0367	1.8741	2.0732	.52575	.50233	.48328
#2	1.8775	1.0837	.98512	1.0360	1.8675	2.0420	.52409	.50201	.48850

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4700.0	57995.	6694.1
Stddev	13.0	17.	29.7
%RSD	.27750	.02859	.44320

#1	4709.2	58007.	6715.1
#2	4690.8	57984.	6673.2

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00077	48.479	.00205	.00307	.00045	.00014	.98850	-.00484	.00018	-.00139	.00062
Stddev	.00072	.194	.00150	.00038	.00033	.00001	.00832	.00019	.00015	.00003	.00003
%RSD	93.834	.39939	73.007	12.249	73.679	10.445	.84140	3.9547	85.087	1.8786	5.2651

#1	.00128	48.616	.00099	.00333	.00069	.00013	.99438	-.00498	.00007	-.00137	.00060
#2	.00026	48.342	.00311	.00280	.00022	.00015	.98262	-.00471	.00029	-.00141	.00065

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00505	46.427	.39770	.00384	.00261	-.00233	-.00020	251.65	.00192	.00453	.00111
Stddev	.00000	.475	.03207	.00102	.00473	.00000	.00014	1.04	.00015	.00308	.00080
%RSD	.07677	1.0240	8.0650	26.442	181.50	.04745	71.535	.41142	8.0571	67.844	71.990

#1	.00505	46.763	.37502	.00312	-.00074	-.00233	-.00029	252.39	.00203	.00671	.00055
#2	.00505	46.091	.42038	.00456	.00595	-.00232	-.00010	250.92	.00181	.00236	.00168

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4.6727	-.00377	-.00091	-.01081	-.02314	-.00723	.00042	5.0112	-.00033	.00251	W 10.688
Stddev	.0941	.00295	.00251	.01165	.02493	.00010	.00009	.0022	.00058	.00045	.143
%RSD	2.0147	78.217	276.36	107.74	107.74	1.3484	21.270	.04286	174.86	17.938	1.3361

#1	4.7393	-.00586	.00087	-.00257	-.00551	-.00730	.00049	5.0127	.00008	.00283	10.587
#2	4.6061	-.00169	-.00269	-.01905	-.04077	-.00716	.00036	5.0096	-.00075	.00219	10.789

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value	5.0000										10.000
Range	-5.0000%										5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00328	.00022	-.00180
Stddev	.00011	.00044	.00649
%RSD	3.3107	206.52	360.23

#1	.00336	.00053	.00279
#2	.00321	-.00010	-.00639

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4728.4	58179.	6697.2
Stddev	1.1	427.	21.1
%RSD	.02381	.73423	.31527

#1	4727.6	58481.	6712.2
#2	4729.2	57877.	6682.3

Sample Name: CCV-3333645 Acquired: 6/16/2015 21:03:29 Type: QC

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.53257	F .57017	.98447	.50941	.49766	.47607	-.00041	4.7407	.50481	.51272	.48211	.51219
Stddev	.00107	.00084	.00945	.00054	.00219	.00002	.00181	.0166	.00092	.00018	.00230	.00188
%RSD	.20100	.14737	.96023	.10518	.44074	.00475	440.69	.34941	.18135	.03529	.47693	.36714

#1	.53333	.57077	.99115	.50903	.49611	.47605	.00087	4.7290	.50545	.51259	.48374	.51352
#2	.53181	.56958	.97779	.50978	.49921	.47609	-.00169	4.7524	.50416	.51285	.48048	.51086

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass				
Value		.50000										
Range		10.490%										

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.3384	52.582	1.0256	21.371	.52627	.48842	5.3940	.52130	1.0497	1.0474	.02126	.99779
Stddev	.0093	.170	.0059	.010	.00079	.00198	.0224	.00416	.0067	.0103	.00160	.01113
%RSD	.39865	.32353	.57786	.04812	.14937	.40582	.41479	.79832	.64091	.98412	7.5272	1.1150

#1	2.3318	52.461	1.0214	21.364	.52682	.48702	5.3782	.51836	1.0450	1.0401	.02013	.98993
#2	2.3450	52.702	1.0298	21.378	.52571	.48982	5.4099	.52424	1.0545	1.0547	.02239	1.0057

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.98836	4.7800	10.229	.96938	.49602	-.00328	.51951	.98878	.01606	.53564	.51683	.50057
Stddev	.00458	.0153	.033	.01236	.00110	.00114	.00020	.00837	.01112	.00216	.00154	.00036
%RSD	.46344	.32031	.32031	1.2752	.22206	34.723	.03838	.84662	69.241	.40253	.29771	.07147

#1	.98512	4.7909	10.252	.96064	.49525	-.00247	.51965	.98286	.00819	.53716	.51792	.50082
#2	.99160	4.7692	10.206	.97812	.49680	-.00408	.51936	.99470	.02392	.53411	.51574	.50031

Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass				
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4830.6	59225.	6658.7
Stddev	13.0	286.	41.9
%RSD	.26847	.48336	.62855

#1	4821.5	59023.	6688.3
#2	4839.8	59428.	6629.1

Sample Name: CCB Acquired: 6/16/2015 21:05:55 Type: QC
 Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0004	.00047	W .00551	.00035	-0.00023	.00001	.00460	-0.00519	-0.00037	.00001	-0.00002
Stddev	.00033	.00041	.00050	.00036	.00022	.00003	.00074	.00313	.00008	.00039	.00025
%RSD	906.92	88.118	8.9843	102.39	94.090	345.81	16.115	60.213	21.107	2807.8	1430.8

#1	.00019	.00076	.00586	.00061	-.00039	.00003	.00512	-.00298	-.00031	-.00026	.00016
#2	-.00027	.00018	.00516	.00010	-.00008	-.00001	.00407	-.00741	-.00042	.00029	-.00020

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass							
High Limit			.00500								
Low Limit			-.00500								

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00034	-0.00324	.21952	.00383	.00350	-0.00005	-0.00022	.16711	.00072	-0.00019	-0.00143
Stddev	.00017	.00038	.04692	.00101	.00140	.00000	.00012	.00366	.00045	.00112	.00039
%RSD	49.131	11.802	21.372	26.280	39.936	8.7003	53.410	2.1924	61.953	594.24	27.129

#1	-.00022	-.00297	.25269	.00311	.00251	-.00006	-.00014	.16452	.00040	.00061	-.00171
#2	-.00046	-.00351	.18634	.00454	.00448	-.00005	-.00030	.16970	.00103	-.00098	-.00116

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01233	-0.00164	.00113	-0.01066	-0.02281	-0.00084	.00001	.00028	-0.00056	.00093	.00465
Stddev	.00165	.00146	.00064	.00645	.01380	.00157	.00007	.00235	.00040	.00012	.00629
%RSD	13.354	89.016	56.804	60.496	60.496	186.25	488.50	827.00	70.849	12.903	135.16

#1	.01117	-.00267	.00158	-.01522	-.03257	.00027	.00007	.00194	-.00084	.00085	.00910
#2	.01349	-.00061	.00068	-.00610	-.01305	-.00196	-.00004	-.00138	-.00028	.00102	.00021

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00006	.00088	-0.00068
Stddev	.00045	.00017	.00037
%RSD	729.74	18.985	54.672

#1	.00038	.00077	-.00041
#2	-.00026	.00100	-.00094

Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4939.3	60967.	6767.3
Stddev	32.7	132.	16.1
%RSD	.66120	.21642	.23823

#1	4916.2	61060.	6778.7
#2	4962.3	60874.	6755.9

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01193	.12117	F .02046	.10427	.01021	.00098	.11464	.19196	.00511	.01086	.01001	.01548
Stddev	.00054	.00007	.00359	.00080	.00036	.00006	.00403	.00015	.00010	.00021	.00037	.00002
%RSD	4.5086	.05948	17.537	.76534	3.5525	5.8533	3.5186	.07993	1.9224	1.9343	3.6575	.15355

#1	.01155	.12111	.02300	.10371	.01046	.00094	.11749	.19185	.00504	.01071	.01026	.01549
#2	.01231	.12122	.01793	.10484	.00995	.00103	.11179	.19206	.00518	.01101	.00975	.01546

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass								
Value			.01500									
Range			30.000%									

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09506	3.5056	.01265	.22861	.01090	.01904	1.2423	.04369	3.1365	.00845	.01110	.00773
Stddev	.00310	.0970	.00049	.00357	.00002	.00003	.0177	.00022	.0115	.00003	.00009	.00060
%RSD	3.2621	2.7666	3.8981	1.5614	.19228	.14194	1.4281	.50788	.36767	.40270	.80014	7.7080

#1	.09725	3.5742	.01230	.22608	.01091	.01902	1.2548	.04353	3.1447	.00847	.01104	.00731
#2	.09287	3.4371	.01300	.23113	.01088	.01906	1.2297	.04385	3.1284	.00842	.01116	.00815

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01296	.47171	1.0095	.09825	.01054	.01475	.01013	.01465	.07118	.01099	.02359	.01549
Stddev	.00149	.00894	.0191	.00078	.00029	.00007	.00042	.00149	.03405	.00041	.00055	.00155
%RSD	11.498	1.8959	1.8959	.78886	2.7816	.47919	4.1343	10.172	47.843	3.7500	2.3134	10.014

#1	.01191	.47803	1.0230	.09879	.01075	.01470	.01043	.01570	.09525	.01128	.02398	.01440
#2	.01401	.46538	.99592	.09770	.01034	.01480	.00983	.01359	.04710	.01070	.02321	.01659

Check ?	Chk Pass											
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5036.6	62274.	6862.3
Stddev	8.3	4.	36.4
%RSD	.16497	.00622	.53068

#1	5030.7	62277.	6836.6
#2	5042.5	62272.	6888.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00079	.00416	.00607	.01156	.01359	-.00008	-.00269	17.819	.00031
Stddev	.00009	.00005	.00360	.00006	.00030	.00004	.00199	.024	.00029
%RSD	11.600	1.1061	59.346	.51419	2.2136	54.289	73.937	.13533	94.417

#1	.00073	.00413	.00861	.01152	.01380	-.00011	-.00409	17.836	.00010
#2	.00086	.00419	.00352	.01160	.01338	-.00005	-.00128	17.802	.00052

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00088	-.00014	-.00024	.63635	3.1092	.00272	11.416	.31106	.00025
Stddev	.00033	.00013	.00024	.00479	.0128	.00233	.069	.00129	.00040
%RSD	37.279	95.652	100.20	.75278	.41307	85.648	.60163	.41580	158.80

#1	-.00112	-.00004	-.00040	.63296	3.1001	.00436	11.367	.31015	-.00003
#2	-.00065	-.00023	-.00007	.63973	3.1183	.00107	11.464	.31198	.00054

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.424	-.00024	.19989	W -.00521	2.0992	-.00492	.00414	19.366	41.443
Stddev	.291	.00006	.00146	.00155	.0091	.00077	.00225	.038	.082
%RSD	2.0148	24.845	.73027	29.822	.43314	15.584	54.380	.19785	.19785

#1	14.629	-.00028	.20092	-.00631	2.1057	-.00438	.00255	19.339	41.385
#2	14.218	-.00020	.19886	-.00411	2.0928	-.00546	.00574	19.393	41.501

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.00300					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00078	.13401	.00049	-.00105	.00324	-.00855	.00039	.00135	-.00068
Stddev	.00054	.00009	.00143	.00010	.00052	.00460	.00060	.00022	.00120
%RSD	68.906	.06503	289.71	10.022	16.117	53.762	152.49	16.089	175.31

#1	-.00040	.13395	.00151	-.00112	.00287	-.01180	-.00003	.00119	.00016
#2	-.00116	.13408	-.00052	-.00097	.00361	-.00530	.00082	.00150	-.00153

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4952.1	61237.	6872.0
Stddev	5.7	453.	24.3
%RSD	.11494	.73933	.35395

#1	4956.2	61557.	6854.8
#2	4948.1	60917.	6889.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00015	.27153	.01185	.05149	.01955	-.00003	-.00240	28.296	.00004
Stddev	.00112	.00006	.00099	.00006	.00010	.00001	.00114	.045	.00004
%RSD	731.74	.02057	8.3722	.11223	.52155	24.043	47.726	.16008	107.83

#1	-.00064	.27157	.01255	.05154	.01948	-.00002	-.00159	28.264	.00001
#2	.00094	.27149	.01115	.05145	.01963	-.00003	-.00320	28.328	.00007

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00046	.00004	.00086	.53949	5.0067	.00757	13.153	.34056	.01765
Stddev	.00024	.00007	.00014	.00327	.0728	.00091	.008	.00028	.00017
%RSD	52.005	185.69	15.803	.60572	1.4549	12.031	.06005	.08353	.95225

#1	-.00029	.00008	.00076	.53718	4.9552	.00693	13.158	.34076	.01753
#2	-.00063	-.00001	.00096	.54180	5.0582	.00821	13.147	.34036	.01777

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	48.817	.00099	.19644	W -.00551	10.681	-.00339	.00570	15.456	33.075
Stddev	.121	.00004	.00153	.00040	.035	.00233	.00092	.120	.257
%RSD	.24870	3.5482	.78086	7.2491	.33165	68.889	16.104	.77793	.77793

#1	48.732	.00096	.19536	-.00579	10.656	-.00504	.00635	15.371	32.893
#2	48.903	.00101	.19753	-.00522	10.706	-.00174	.00505	15.541	33.257

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.00300					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00074	.18441	.00042	.01083	.00313	-.03193	.00056	.00138	-.00062
Stddev	.00073	.00033	.00248	.00066	.00061	.02716	.00033	.00012	.00081
%RSD	97.949	.18130	589.71	6.0660	19.561	85.053	58.365	8.6902	131.05

#1	-.00125	.18417	.00217	.01129	.00356	-.05114	.00033	.00146	-.00119
#2	-.00023	.18464	-.00133	.01036	.00270	-.01273	.00079	.00129	-.00005

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4901.7	60762.	6883.9
Stddev	4.0	14.	29.2
%RSD	.08251	.02363	.42424

#1	4904.6	60751.	6904.6
#2	4898.8	60772.	6863.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0001	.00710	.01425	.02461	.01091	-0.0002	.00028	24.385	.00009
Stddev	.00020	.00034	.00282	.00071	.00004	.00003	.00068	.105	.00002
%RSD	2294.7	4.8481	19.785	2.8964	.37134	185.80	243.23	.42916	24.509

#1	-0.0015	.00686	.01624	.02511	.01089	-0.0004	-0.0020	24.311	.00011
#2	.00013	.00735	.01225	.02410	.01094	.00001	.00076	24.459	.00008

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0047	-0.0025	.00005	.01191	4.5984	.00376	12.499	.24653	-0.0176
Stddev	.00022	.00022	.00001	.00102	.0014	.00027	.017	.00033	.00010
%RSD	47.031	89.112	12.742	8.5240	.03144	7.0587	.13922	.13504	5.9005

#1	-0.0063	-0.0009	.00006	.01263	4.5994	.00357	12.486	.24629	-0.0183
#2	-0.0032	-0.0041	.00005	.01119	4.5974	.00395	12.511	.24676	-0.0169

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	589.592 {57}	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.7134	W 10.088	-0.0044	.31978	W -.00568	2.3168	-0.00643	.00260	16.470
Stddev	.0339	.084	.00024	.00603	.00107	.0353	.00102	.00004	.095
%RSD	.34909	.83408	54.163	1.8844	18.771	1.5224	15.934	1.5475	.57793

#1	9.6894	10.029	-0.0061	.32404	-0.0644	2.3418	-0.00716	.00263	16.402
#2	9.7373	10.148	-0.0027	.31552	-0.0493	2.2919	-0.00571	.00257	16.537

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		500.00			10.000				
Low Limit		11.000			-0.00300				

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	35.245	-0.0102	.13165	.00062	-0.0076	.00383	-0.01768	.00045	.00238
Stddev	.204	.00061	.00006	.00055	.00023	.00043	.01385	.00106	.00022
%RSD	.57793	59.301	.04905	89.890	30.782	11.142	78.379	234.63	9.2479

#1	35.101	-0.0145	.13161	.00101	-0.0059	.00413	-0.00788	-0.00030	.00253
#2	35.389	-0.0059	.13170	.00022	-0.0092	.00353	-0.02747	.00120	.00222

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 {99}
Units	ppm
Avg	-0.00058
Stddev	.00099
%RSD	171.13

#1	.00012
#2	-0.00128

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-70425-d-4-b Acquired: 6/16/2015 21:16:10 Type: Unk
Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
User: S. Scott Prep Date: Custom ID2: Custom ID3:
Comment: 281217 6010B

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	4939.3	61293.	6875.6
Stddev	.6	86.	30.4
%RSD	.01275	.14004	.44201
#1	4938.9	61232.	6897.1
#2	4939.8	61354.	6854.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00035	.00650	.01411	.02113	.01012	.00006	-.00263	24.375	.00022
Stddev	.00002	.00006	.00212	.00022	.00014	.00003	.00091	.101	.00006
%RSD	5.4795	.86217	15.028	1.0322	1.3910	52.844	34.461	.41577	26.644

#1	.00034	.00654	.01561	.02128	.01002	.00004	-.00328	24.447	.00018
#2	.00037	.00646	.01261	.02098	.01022	.00008	-.00199	24.303	.00026

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00063	-.00036	-.00008	.00951	4.6255	.00394	12.361	.22633	-.00166
Stddev	.00014	.00006	.00031	.00002	.0284	.00180	.059	.00147	.00021
%RSD	22.871	17.772	380.48	.23799	.61296	45.748	.47565	.65127	12.407

#1	-.00052	-.00032	-.00030	.00950	4.6456	.00522	12.402	.22737	-.00152
#2	-.00073	-.00041	.00014	.00953	4.6055	.00267	12.319	.22528	-.00181

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.7033	.00003	.31994	W -.00531	2.3138	-.00319	.00179	16.595	35.514
Stddev	.0320	.00030	.00220	.00132	.0236	.00022	.00324	.083	.177
%RSD	.32972	890.31	.68904	24.842	1.0213	6.7515	180.52	.49867	.49867

#1	9.6807	-.00018	.31838	-.00624	2.2971	-.00303	-.00050	16.654	35.639
#2	9.7259	.00024	.32149	-.00437	2.3305	-.00334	.00408	16.537	35.389

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.00300					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00123	.13210	-.00056	-.00047	.00400	-.02387	.00039	.00139	-.00151
Stddev	.00033	.00018	.00002	.00001	.00018	.00472	.00040	.00035	.00067
%RSD	27.231	.13864	3.6789	2.7949	4.3968	19.778	102.85	25.253	44.214

#1	-.00099	.13223	-.00055	-.00046	.00412	-.02053	.00068	.00114	-.00104
#2	-.00146	.13197	-.00058	-.00048	.00387	-.02721	.00011	.00164	-.00199

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4930.6	61814.	6952.8
Stddev	7.1	121.	17.1
%RSD	.14381	.19619	.24559

#1	4925.6	61900.	6940.8
#2	4935.6	61729.	6964.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00062	.00762	.00517	.01901	.01426	.00003	-.00393	23.467	.00032
Stddev	.00027	.00035	.00079	.00039	.00025	.00003	.00031	.073	.00015
%RSD	43.293	4.5477	15.237	2.0462	1.7676	111.16	7.8587	.31314	47.108

#1	.00081	.00738	.00461	.01874	.01408	.00005	-.00371	23.415	.00043
#2	.00043	.00787	.00573	.01929	.01443	.00001	-.00415	23.519	.00022

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00074	-.00018	.00053	.00876	2.2334	.00374	11.490	.00203	-.00236
Stddev	.00048	.00003	.00008	.00076	.0030	.00014	.036	.00005	.00009
%RSD	64.506	18.939	14.818	8.6932	.13272	3.7583	.31769	2.6971	3.9782

#1	-.00107	-.00016	.00047	.00822	2.2313	.00364	11.465	.00199	-.00243
#2	-.00040	-.00021	.00058	.00929	2.2355	.00384	11.516	.00207	-.00229

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.387	.00000	.08650	W -.00515	2.2315	-.00179	.00591	21.744	46.532
Stddev	.577	.0001	.00168	.00059	.0153	.00067	.00009	.125	.267
%RSD	4.3072	148080.	1.9367	11.453	.68760	37.712	1.5844	.57332	.57332

#1	12.980	.00007	.08768	-.00557	2.2424	-.00131	.00584	21.656	46.344
#2	13.795	-.00007	.08532	-.00474	2.2207	-.00226	.00597	21.832	46.721

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.00300					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00077	.21579	-.00007	-.00042	.00478	W -.05686	.00307	.00765	-.00197
Stddev	.00007	.00007	.00106	.00008	.00092	.01448	.00047	.00014	.00266
%RSD	9.7348	.03058	1436.1	19.114	19.161	25.465	15.405	1.8723	134.96

#1	-.00072	.21574	.00067	-.00048	.00543	-.04662	.00341	.00775	-.00385
#2	-.00082	.21583	-.00082	-.00037	.00413	-.06710	.00274	.00755	-.00009

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4900.7	60695.	6813.2
Stddev	1.1	253.	1.2
%RSD	.02285	.41718	.01784

#1	4899.9	60874.	6812.3
#2	4901.5	60516.	6814.0

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00140	48.596	.00343	.00107	.00039	.00016	.97874	-.00327	.00018	-.00113	.00061
Stddev	.00023	.004	.00018	.00026	.00017	.00002	.00629	.00030	.00011	.00024	.00021
%RSD	16.766	.00891	5.3796	24.069	42.802	10.229	.64301	9.1359	63.452	21.473	34.705

#1	.00157	48.599	.00330	.00125	.00027	.00014	.98319	-.00306	.00026	-.00096	.00077
#2	.00123	48.593	.00356	.00089	.00051	.00017	.97429	-.00348	.00010	-.00130	.00046

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00521	46.287	.22704	.00453	.00029	-.00230	-.00056	252.58	.00157	.00639	.00187
Stddev	.00019	.370	.10154	.00039	.00244	.00009	.00009	.22	.00025	.00047	.00020
%RSD	3.7255	.79877	44.726	8.5493	854.37	3.7927	16.217	.08817	16.021	7.3088	10.553

#1	.00535	46.549	.15523	.00480	.00201	-.00224	-.00062	252.73	.00140	.00606	.00174
#2	.00508	46.026	.29884	.00425	-.00144	-.00237	-.00050	252.42	.00175	.00672	.00201

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4.5813	-.00090	-.00358	-.02608	-.05580	-.00729	.00015	4.9963	-.00033	.00144	W 10.617
Stddev	.0363	.00063	.00101	.00675	.01444	.00066	.00016	.0233	.00003	.00042	.114
%RSD	.79272	69.581	28.192	25.876	25.876	9.0367	107.07	.46571	9.2938	29.002	1.0753

#1	4.6070	-.00046	-.00287	-.02131	-.04559	-.00776	.00026	5.0128	-.00031	.00115	10.537
#2	4.5556	-.00135	-.00429	-.03085	-.06601	-.00683	.00004	4.9799	-.00035	.00174	10.698

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value	5.0000										10.000
Range	-5.0000%										5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00353	.00136	-.00335
Stddev	.00050	.00053	.00099
%RSD	14.114	38.545	29.652

#1	.00388	.00099	-.00264
#2	.00317	.00173	-.00405

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4769.3	58609.	6644.9
Stddev	6.0	354.	37.0
%RSD	.12618	.60452	.55682

#1	4765.0	58359.	6618.8
#2	4773.5	58860.	6671.1

Sample Name: CCV-3333645 Acquired: 6/16/2015 21:26:39 Type: QC

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52903	F .57386	.99381	.50366	.49424	.47166	-.00265	4.7153	.50218	.51493	.48329	.50797
Stddev	.00124	.00058	.00481	.00199	.00182	.00346	.00158	.0332	.00191	.00607	.00071	.00226
%RSD	.23371	.10084	.48431	.39502	.36755	.73422	59.618	.70353	.38067	1.1785	.14777	.44440

#1	.52816	.57345	.99040	.50225	.49295	.46921	-.00376	4.6919	.50083	.51922	.48279	.50637
#2	.52990	.57427	.99721	.50507	.49552	.47411	-.00153	4.7388	.50353	.51064	.48380	.50956

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass				
Value		.50000										
Range		10.490%										

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.3035	52.415	1.0166	21.198	.52204	.49346	5.3444	.52209	1.0458	1.0528	.01437	1.0017
Stddev	.0284	.309	.0040	.034	.00033	.00189	.0022	.00144	.0001	.0045	.00371	.0025
%RSD	1.2318	.58945	.39081	.15884	.06233	.38290	.04205	.27529	.00836	.42969	25.814	.24871

#1	2.2835	52.196	1.0138	21.222	.52227	.49212	5.3428	.52108	1.0458	1.0560	.01700	1.0034
#2	2.3236	52.633	1.0194	21.174	.52181	.49479	5.3460	.52311	1.0457	1.0496	.01175	.99993

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.99181	4.6637	9.9802	.97776	.49203	-.00190	.51575	.99642	-.00476	.52725	.51386	.48726
Stddev	.00204	.0877	.1876	.00495	.00239	.00180	.00114	.00005	.03358	.00578	.00050	.00357
%RSD	.20615	1.8795	1.8795	.50582	.48528	95.037	.22054	.00534	705.41	1.0960	.09820	.73306

#1	.99036	4.6017	9.8476	.98126	.49034	-.00317	.51655	.99639	.01899	.52316	.51350	.48474
#2	.99325	4.7256	10.113	.97427	.49372	-.00062	.51495	.99646	-.02851	.53133	.51421	.48979

Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass				
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4859.4	60294.	6742.0
Stddev	14.2	178.	20.1
%RSD	.29294	.29546	.29856

#1	4869.5	60168.	6756.2
#2	4849.3	60420.	6727.7

Sample Name: CCB Acquired: 6/16/2015 21:29:05 Type: QC
 Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00075	.00000	.00283	-.00049	-.00030	.00000	.00578	-.00737	-.00012	.00004	-.00016	-.00052	-.00150
Stddev	.00009	.00002	.00157	.00018	.00000	.00000	.00109	.00212	.00009	.00017	.00008	.00042	.00267
%RSD	12.236	398.84	55.524	37.579	.17171	44.723	18.910	28.691	73.828	485.62	51.292	81.515	178.28

#1	.00069	-.00001	.00172	-.00036	-.00030	.00000	.00501	-.00887	-.00018	.00016	-.00011	-.00082	.00039
#2	.00082	.00002	.00394	-.00062	-.00030	.00000	.00656	-.00588	-.00006	-.00009	-.00022	-.00022	-.00338

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.16538	.00342	.00072	.00003	-.00043	.14026	.00032	.00100	.00043	.01110	-.00097	.00024	-.00267
Stddev	.02727	.00050	.00043	.00005	.00018	.01460	.00017	.00056	.00159	.00107	.00109	.00066	.00121
%RSD	16.491	14.591	60.436	136.13	42.381	10.408	52.105	55.859	365.59	9.6158	111.79	270.01	45.233

#1	.14609	.00377	.00103	.00007	-.00030	.12994	.00020	.00060	-.00069	.01185	-.00020	.00071	-.00352
#2	.18466	.00306	.00041	.00000	-.00056	.15058	.00044	.00139	.00156	.01034	-.00174	-.00022	-.00181

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00571	-.00096	.00007	-.00157	-.00049	-.00038	.00783	.00045	.00053	.00144
Stddev	.00258	.00005	.00002	.00129	.00031	.00202	.02062	.00076	.00004	.00148
%RSD	45.233	4.8241	33.639	82.641	64.738	537.34	263.19	169.39	6.8055	102.95

#1	-.00754	-.00093	.00005	-.00065	-.00026	-.00180	.02241	.00099	.00056	.00039
#2	-.00388	-.00099	.00009	-.00248	-.00071	.00105	-.00674	-.00009	.00051	.00249

Check ?	Chk Pass									
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4976.3	62044.	6780.2
Stddev	6.3	436.	33.7
%RSD	.12667	.70311	.49680

#1	4971.8	61736.	6756.4
#2	4980.8	62353.	6804.0

Sample Name: CCVL-3333670 Acquired: 6/16/2015 21:31:26 Type: QC

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01151	.12270	.01858	.10474	.00980	.00102	.11598	.19314	.00538	.01114	.01009	.01590	.09110	3.5028
Stddev	.00022	.00009	.00146	.00016	.00044	.00005	.00195	.00005	.00025	.00014	.00009	.00045	.00290	.0392
%RSD	1.9161	.07048	7.8687	.15072	4.4608	4.9090	1.6784	.02810	4.6905	1.2815	.92449	2.8172	3.1873	1.1179

#1	.01135	.12264	.01754	.10462	.00949	.00099	.11735	.19318	.00520	.01124	.01003	.01622	.08905	3.4751
#2	.01166	.12276	.01961	.10485	.01011	.00106	.11460	.19310	.00555	.01104	.01016	.01559	.09315	3.5305

Check ?	Chk Pass													
Value														
Range														

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01272	.22809	.01103	.01904	1.2193	.04393	3.1717	.00945	.01231	.00955	.01768	.47849	1.0240	.09920
Stddev	.00172	.00028	.00005	.00004	.0104	.00016	.0012	.00063	.00088	.00062	.00551	.01815	.0389	.00143
%RSD	13.548	.12282	.44613	.19898	.84895	.36618	.03888	6.6989	7.1398	6.4735	31.173	3.7939	3.7939	1.4438

#1	.01394	.22829	.01100	.01902	1.2120	.04382	3.1708	.00990	.01169	.00911	.01378	.49133	1.0514	.10021
#2	.01150	.22789	.01107	.01907	1.2266	.04405	3.1725	.00901	.01293	.00999	.02158	.46565	.99650	.09819

Check ?	Chk Pass	None	Chk Pass											
Value														
Range														

Elem	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01029	.01322	.01000	.01526	.06861	.01084	.02340	.01379
Stddev	.00004	.00019	.00019	.00041	.00019	.00055	.00016	.00122
%RSD	.43672	1.4645	1.8882	2.6887	.27797	5.1127	.68719	8.8291

#1	.01032	.01335	.01013	.01497	.06874	.01123	.02329	.01293
#2	.01026	.01308	.00987	.01555	.06847	.01045	.02351	.01465

Check ?	Chk Pass							
Value								
Range								

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5026.6	62787.	6870.1
Stddev	3.7	223.	10.2
%RSD	.07452	.35480	.14797

#1	5023.9	62630.	6862.9
#2	5029.2	62945.	6877.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00002	.00314	.00406	.00033	-.00016	.00000	.00312	.00225	.00009
Stddev	.00064	.00047	.00183	.00045	.00005	.0001	.00069	.00071	.00004
%RSD	2867.3	14.933	45.146	138.68	29.403	1845.0	22.082	31.613	41.681

#1	-.00043	.00347	.00277	.00001	-.00013	.00003	.00360	.00275	.00006
#2	.00048	.00281	.00536	.00065	-.00019	-.00004	.00263	.00174	.00011

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00009	.00002	.00015	.00502	.15580	.00147	-.00304	.00007	-.00016
Stddev	.00000	.00009	.00002	.00045	.06305	.00163	.00012	.00001	.00008
%RSD	1.6555	366.66	13.512	8.8728	40.467	110.80	3.8627	14.804	50.436

#1	.00009	.00008	.00014	.00534	.20038	.00263	-.00312	.00007	-.00021
#2	.00009	-.00004	.00016	.00471	.11122	.00032	-.00296	.00008	-.00010

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.12537	.00041	.00067	-.00039	.01371	-.00275	-.00085	-.00716	-.01532
Stddev	.01140	.00055	.00051	.00099	.00007	.00120	.00036	.00225	.00480
%RSD	9.0933	132.39	76.269	253.42	.48234	43.503	42.062	31.370	31.370

#1	.13344	.00003	.00102	.00031	.01367	-.00360	-.00110	-.00875	-.01871
#2	.11731	.00080	.00031	-.00109	.01376	-.00190	-.00059	-.00557	-.01192

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00119	.00008	-.00007	-.00034	-.00016	-.00375	-.00009	.00126	.00002
Stddev	.00005	.00002	.00131	.00031	.00046	.07624	.00031	.00017	.00088
%RSD	4.0114	19.714	1774.4	91.505	292.11	2034.0	358.04	13.832	4676.8

#1	-.00123	.00007	-.00100	-.00012	-.00048	.05016	.00013	.00113	.00064
#2	-.00116	.00010	.00085	-.00056	.00017	-.05766	-.00031	.00138	-.00060

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	5057.4	63269.	6928.4
Stddev	31.1	323.	18.7
%RSD	.61557	.51037	.27034

#1	5035.4	63497.	6941.7
#2	5079.4	63041.	6915.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05628	2.1745	.99741	1.0459	2.0024	.04792	2.0415	47.085	.10150
Stddev	.00098	.0006	.00024	.0001	.0044	.00006	.0080	.100	.00031
%RSD	1.7340	.02940	.02360	.01449	.21853	.12718	.38932	.21199	.30307

#1	.05697	2.1750	.99758	1.0458	1.9994	.04788	2.0471	47.014	.10129
#2	.05559	2.1741	.99724	1.0460	2.0055	.04797	2.0359	47.156	.10172

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50610	F .19576	.25981	.91473	53.105	1.0298	52.714	.51664	1.0017
Stddev	.00446	.00005	.00189	.00233	.171	.0001	.092	.00107	.0004
%RSD	.88215	.02395	.72722	.25461	.32248	.01461	.17381	.20757	.03812

#1	.50295	.19573	.26114	.91309	52.984	1.0296	52.649	.51588	1.0015
#2	.50926	.19579	.25847	.91638	53.226	1.0299	52.779	.51740	1.0020

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	52.182	.50785	10.717	.49880	1.8948	.50312	2.0330	9.4152	20.149
Stddev	.162	.00044	.013	.00278	.0027	.00311	.0059	.0302	.065
%RSD	.31079	.08656	.11803	.55659	.14078	.61881	.28888	.32082	.32082

#1	52.068	.50754	10.725	.50076	1.8967	.50532	2.0289	9.3939	20.103
#2	52.297	.50816	10.708	.49684	1.8929	.50092	2.0372	9.4366	20.194

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9323	.99635	.99079	1.0322	1.9421	2.1097	.52616	.50011	.49017
Stddev	.0159	.00175	.00110	.0008	.0103	.0178	.00255	.00307	.00144
%RSD	.82456	.17610	.11055	.08223	.53085	.84360	.48550	.61459	.29403

#1	1.9210	.99511	.99157	1.0316	1.9348	2.1223	.52435	.49793	.48915
#2	1.9435	.99759	.99002	1.0328	1.9494	2.0971	.52796	.50228	.49119

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4798.3	60511.	7003.0
Stddev	6.3	570.	2.6
%RSD	.13055	.94235	.03660

#1	4793.9	60914.	7001.2
#2	4802.8	60108.	7004.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00062	.00378	.01149	.37285	.03059	-.00008	-.00494	167.21	-.00005
Stddev	.00033	.00090	.00389	.00107	.00002	.00013	.00192	.69	.00014
%RSD	53.588	23.815	33.857	.28806	.05627	153.19	38.842	.41061	308.82

#1	.00039	.00442	.01424	.37209	.03060	-.00017	-.00630	167.70	.00005
#2	.00086	.00315	.00874	.37361	.03057	.00001	-.00359	166.73	-.00014

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00045	-.00012	-.00008	.07666	12.472	.01163	4.6530	.04159	.00059
Stddev	.00003	.00008	.00018	.00204	.021	.00138	.0074	.00014	.00007
%RSD	7.3519	64.510	216.83	2.6547	.16862	11.870	.15872	.33764	12.595

#1	-.00042	-.00007	.00004	.07810	12.457	.01066	4.6478	.04149	.00054
#2	-.00047	-.00018	-.00021	.07522	12.487	.01261	4.6583	.04169	.00064

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	19.778	.00179	.21272	F -.01427	48.193	-.00573	.01727	13.823	29.582
Stddev	.257	.00015	.00343	.00007	.177	.00156	.00017	.032	.068
%RSD	1.2997	8.6454	1.6128	.48330	.36749	27.248	.95666	.22967	.22967

#1	19.960	.00168	.21029	-.01422	48.318	-.00683	.01739	13.846	29.630
#2	19.596	.00190	.21514	-.01432	48.068	-.00462	.01715	13.801	29.534

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass				
High Limit				200.00					
Low Limit				-.00600					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00185	.76905	-.00158	-.00091	.00945	.00457	.00214	.00193	-.00092
Stddev	.00029	.00145	.00047	.00010	.00182	.00861	.00020	.00035	.00124
%RSD	15.834	.18795	29.993	11.568	19.237	188.51	9.5763	18.222	134.18

#1	-.00165	.77007	-.00192	-.00098	.00816	.01066	.00228	.00218	-.00179
#2	-.00206	.76802	-.00125	-.00083	.01073	-.00152	.00199	.00168	-.00005

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4718.6	59357.	6846.3
Stddev	15.5	58.	1.3
%RSD	.32951	.09853	.01869

#1	4729.6	59399.	6847.2
#2	4707.6	59316.	6845.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00095	.00044	.00968	.07435	.00585	-.00007	.00230	33.302	-.00026
Stddev	.00079	.00000	.00436	.00014	.00012	.00002	.00171	.088	.00012
%RSD	83.139	.75983	45.016	.19074	1.9868	21.858	74.401	.26281	46.038

#1	.00151	.00043	.01277	.07425	.00593	-.00008	.00109	33.364	-.00018
#2	.00039	.00044	.00660	.07445	.00576	-.00006	.00351	33.241	-.00035

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00017	-.00027	-.00033	.01475	2.6850	.00563	.96236	.00843	-.00189
Stddev	.00009	.00008	.00025	.00203	.0315	.00123	.00289	.00003	.00016
%RSD	49.069	27.925	75.339	13.734	1.1720	21.775	.30050	.30003	8.6708

#1	-.00011	-.00022	-.00016	.01618	2.7073	.00476	.96031	.00841	-.00178
#2	-.00023	-.00032	-.00051	.01332	2.6628	.00649	.96440	.00844	-.00201

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.7669	.00066	.04260	W -.00570	9.7847	-.00584	.00700	2.6886	5.7535
Stddev	.0176	.00023	.00283	.00005	.0230	.00112	.00545	.0044	.0094
%RSD	.46590	34.809	6.6526	.82507	.23507	19.188	77.772	.16361	.16361

#1	3.7545	.00049	.04460	-.00566	9.7684	-.00505	.00315	2.6917	5.7602
#2	3.7794	.00082	.04060	-.00573	9.8009	-.00664	.01085	2.6855	5.7469

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.00300					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00106	.15191	.00196	-.00072	.00529	-.04873	.00094	.00086	-.00156
Stddev	.00035	.00011	.00051	.00044	.00047	.00738	.00034	.00063	.00048
%RSD	33.164	.06987	25.897	60.532	8.9458	15.143	36.611	73.436	31.102

#1	-.00131	.15183	.00232	-.00103	.00563	-.04351	.00069	.00131	-.00122
#2	-.00081	.15198	.00160	-.00041	.00496	-.05395	.00118	.00041	-.00190

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4925.1	61190.	6721.6
Stddev	22.5	231.	9.3
%RSD	.45626	.37743	.13803

#1	4909.2	61353.	6728.2
#2	4941.0	61026.	6715.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05512	2.0910	1.0028	1.3842	1.9902	.04673	F 1.9666	208.39	.09917
Stddev	.00028	.0060	.0027	.0005	.0028	.00003	.0006	1.34	.00014
%RSD	.50527	.28658	.27327	.03405	.13988	.07228	.03268	.64126	.14152

#1	.05493	2.0868	1.0008	1.3845	1.9882	.04670	1.9662	207.45	.09927
#2	.05532	2.0953	1.0047	1.3838	1.9922	.04675	1.9671	209.34	.09907

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48877	W .19263	.25189	.95795	65.161	1.0268	55.041	.54541	.98792
Stddev	.00241	.00000	.00061	.00281	.043	.0023	.086	.00072	.00389
%RSD	.49309	.00119	.24128	.29296	.06594	.22631	.15622	.13113	.39379

#1	.49047	.19263	.25232	.95994	65.130	1.0251	55.102	.54491	.98517
#2	.48706	.19263	.25146	.95597	65.191	1.0284	54.981	.54592	.99067

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	70.753	.49235	W 10.833	.47696	50.183	.48514	1.9714	22.609	48.383
Stddev	.150	.00079	.003	.00009	.021	.00312	.0005	.076	.163
%RSD	.21262	.16004	.03128	.01789	.04137	.64229	.02675	.33736	.33736

#1	70.647	.49179	10.831	.47690	50.168	.48735	1.9710	22.555	48.267
#2	70.859	.49291	10.836	.47702	50.198	.48294	1.9718	22.663	48.498

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.8721	1.7361	.97595	1.0178	1.8312	2.0405	.52014	.48656	.48051
Stddev	.0015	.0019	.00164	.0009	.0009	.0389	.00156	.00282	.00071
%RSD	.07864	.10924	.16846	.08947	.04809	1.9085	.30033	.57897	.14846

#1	1.8711	1.7347	.97711	1.0172	1.8306	2.0681	.51903	.48457	.48001
#2	1.8732	1.7374	.97479	1.0185	1.8319	2.0130	.52124	.48855	.48102

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4604.1	57909.	6705.7
Stddev	7.0	31.	24.0
%RSD	.15150	.05313	.35730

#1	4609.0	57888.	6722.6
#2	4599.2	57931.	6688.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05570	2.1467	1.0154	1.4016	2.0490	.04833	F 1.9953	211.83	.10079
Stddev	.00108	.0041	.0012	.0010	.0031	.00019	.0005	1.05	.00037
%RSD	1.9322	.18947	.11805	.06897	.15332	.39114	.02363	.49469	.37054

#1	.05494	2.1496	1.0146	1.4009	2.0468	.04819	1.9950	212.57	.10105
#2	.05646	2.1438	1.0163	1.4023	2.0512	.04846	1.9956	211.09	.10053

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50378	W .19723	.25691	.98754	66.878	1.0589	56.192	.55718	1.0117
Stddev	.00123	.00051	.00006	.00074	.076	.0056	.043	.00065	.0003
%RSD	.24451	.26074	.02320	.07471	.11396	.52547	.07665	.11577	.02730

#1	.50465	.19687	.25696	.98806	66.824	1.0550	56.162	.55673	1.0115
#2	.50291	.19760	.25687	.98702	66.932	1.0629	56.223	.55764	1.0119

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	72.115	.50397	W 11.044	.48495	50.171	.49686	2.0202	23.074	49.379
Stddev	.059	.00051	.001	.00107	.029	.00127	.0163	.004	.009
%RSD	.08215	.10110	.00659	.22047	.05815	.25607	.80749	.01916	.01916

#1	72.073	.50433	11.043	.48570	50.150	.49596	2.0318	23.078	49.386
#2	72.157	.50361	11.044	.48419	50.191	.49776	2.0087	23.071	49.373

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9208	1.7733	1.0032	1.0411	1.8692	2.0728	.53271	.49750	.49590
Stddev	.0194	.0021	.0043	.0009	.0171	.0222	.00117	.00147	.00130
%RSD	1.0111	.11820	.42896	.08975	.91757	1.0729	.22039	.29492	.26159

#1	1.9345	1.7718	1.0001	1.0404	1.8813	2.0886	.53188	.49646	.49681
#2	1.9071	1.7748	1.0062	1.0417	1.8571	2.0571	.53354	.49853	.49498

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4626.1	58204.	6664.6
Stddev	8.6	99.	35.6
%RSD	.18635	.17042	.53395

#1	4620.0	58134.	6639.4
#2	4632.2	58274.	6689.7

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00118	48.600	-.00035	.00339	.00058	.00013	.98021	.00604	.00007	-.00120	.00064
Stddev	.00035	.181	.00125	.00041	.00001	.00007	.00513	.00209	.00014	.00008	.00001
%RSD	29.199	.37266	362.48	12.122	.91445	51.562	.52293	34.637	195.73	6.9291	2.0998

#1	.00094	48.472	.00054	.00368	.00057	.00018	.97658	.00752	.00018	-.00114	.00063
#2	.00143	48.728	-.00123	.00310	.00058	.00008	.98383	.00456	-.00003	-.00126	.00065

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00485	46.228	.42842	.00552	.00732	-.00230	-.00042	253.22	.00186	.00557	.00093
Stddev	.00141	.543	.05217	.00002	.00270	.00000	.00037	.81	.00015	.00156	.00036
%RSD	29.064	1.1736	12.178	.35676	36.844	.00979	86.721	.31986	8.1759	28.056	38.757

#1	.00584	46.612	.46531	.00553	.00922	-.00230	-.00068	252.65	.00196	.00446	.00118
#2	.00385	45.845	.39153	.00551	.00541	-.00230	-.00016	253.80	.00175	.00667	.00067

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4.6122	-.00736	-.00266	-.00501	-.01072	-.00706	.00036	5.0100	-.00079	.00188	W 10.572
Stddev	.0358	.00163	.00018	.00441	.00943	.00135	.00004	.0128	.00076	.00140	.163
%RSD	.77631	22.135	6.8423	87.929	87.929	19.103	9.8310	.25520	96.498	74.459	1.5454

#1	4.5869	-.00621	-.00253	-.00813	-.01739	-.00610	.00033	5.0009	-.00025	.00287	10.688
#2	4.6375	-.00851	-.00279	-.00190	-.00406	-.00801	.00038	5.0190	-.00133	.00089	10.456

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value	5.0000										10.000
Range	-5.0000%										5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00313	.00132	-.00445
Stddev	.00071	.00019	.00438
%RSD	22.719	14.490	98.331

#1	.00363	.00118	-.00136
#2	.00263	.00145	-.00755

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4740.9	58627.	6679.5
Stddev	13.6	187.	29.8
%RSD	.28596	.31889	.44552

#1	4750.5	58759.	6658.5
#2	4731.3	58495.	6700.6

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52807	F .58180	.99504	.50936	.49674	.47357	-.00004	4.7557	.50445	.52189	.48990	.50836
Stddev	.00027	.00078	.00721	.00150	.00076	.00079	.00080	.0101	.00051	.00260	.00081	.00051
%RSD	.05187	.13418	.72464	.29429	.15366	.16727	2103.4	.21290	.10113	.49854	.16612	.10001

#1	.52787	.58236	.98994	.51042	.49620	.47301	.00053	4.7485	.50409	.52005	.48933	.50872
#2	.52826	.58125	1.0001	.50830	.49728	.47413	-.00060	4.7629	.50481	.52373	.49048	.50800

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass				
Value		.50000										
Range		10.490%										

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.3102	52.675	1.0215	21.311	.52558	.49692	5.3567	.52410	1.0544	1.0529	.01779	1.0004
Stddev	.0229	.042	.0013	.038	.00045	.00377	.0081	.00362	.0118	.0131	.00258	.0117
%RSD	.99152	.07923	.12449	.17606	.08476	.75961	.15169	.69149	1.1172	1.2398	14.491	1.1703

#1	2.2940	52.646	1.0224	21.285	.52590	.49425	5.3625	.52154	1.0461	1.0437	.01597	.99211
#2	2.3264	52.705	1.0206	21.338	.52527	.49959	5.3510	.52667	1.0627	1.0622	.01961	1.0087

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.99068	4.7460	10.157	.98453	.49441	-.00143	.51694	1.0023	.00410	.53315	.52230	.49251
Stddev	.00859	.0767	.164	.01009	.00066	.00063	.00014	.0168	.02285	.00046	.00369	.00858
%RSD	.86726	1.6169	1.6169	1.0251	.13385	44.337	.02721	1.6707	557.20	.08563	.70575	1.7413

#1	.98460	4.6918	10.040	.97739	.49488	-.00188	.51704	.99048	.02026	.53283	.51969	.48644
#2	.99675	4.8003	10.273	.99167	.49394	-.00098	.51684	1.0142	-.01206	.53347	.52490	.49857

Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass				
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4811.2	59501.	6692.5
Stddev	.8	128.	35.3
%RSD	.01621	.21476	.52763

#1	4810.7	59411.	6717.4
#2	4811.8	59592.	6667.5

Sample Name: CCB Acquired: 6/16/2015 21:53:58 Type: QC
 Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00072	.00025	.00468	.00056	-.00042	.00000	.00669	-.00550	-.00023	.00021	.00007	-.00045	-.00424
Stddev	.00033	.00039	.00391	.00078	.00006	.0000	.00113	.00112	.00025	.00006	.00010	.00027	.00024
%RSD	46.802	155.12	83.598	137.98	13.068	1118.5	16.957	20.433	108.78	29.611	132.58	60.813	5.6630
#1	.00048	-.00002	.00191	.00111	-.00046	.00001	.00589	-.00471	-.00005	.00025	.00014	-.00064	-.00407
#2	.00095	.00053	.00744	.00001	-.00038	-.00001	.00749	-.00630	-.00040	.00016	.00000	-.00026	-.00441

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.23185	.00467	-.00048	-.00004	-.00041	.13209	.00051	.00048	-.00094	.00989	-.00213	-.00008	.01172
Stddev	.05894	.00060	.00343	.00014	.00029	.01795	.00034	.00054	.00000	.00217	.00276	.00333	.01158
%RSD	25.423	12.760	712.74	367.34	69.983	13.587	66.037	114.17	.25697	21.976	129.74	4365.1	98.789
#1	.19017	.00425	-.00290	.00006	-.00021	.11940	.00027	.00086	-.00094	.00835	-.00408	.00227	.00353
#2	.27353	.00509	.00194	-.00014	-.00061	.14478	.00075	.00009	-.00094	.01143	-.00018	-.00243	.01991

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02508	-.00013	.00001	-.00180	-.00048	-.00057	.00326	.00020	.00052	.00017
Stddev	.02478	.00016	.00011	.00252	.00066	.00047	.00073	.00015	.00033	.00110
%RSD	98.789	118.10	1697.0	140.01	137.34	82.904	22.342	72.647	63.676	661.20
#1	.00756	-.00002	-.00007	-.00358	-.00001	-.00024	.00274	.00010	.00075	-.00061
#2	.04260	-.00025	.00008	-.00002	-.00095	-.00091	.00377	.00031	.00029	.00094

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4923.4	61853.	6673.5
Stddev	1.8	599.	60.2
%RSD	.03579	.96851	.90160
#1	4922.1	62276.	6631.0
#2	4924.6	61429.	6716.1

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01142	.12328	F .02006	.10390	.01038	.00098	.11253	.19183	.00498	.01102	.01042	.01513
Stddev	.00022	.00050	.00036	.00062	.00035	.00005	.00114	.00244	.00010	.00013	.00030	.00057
%RSD	1.9592	.40769	1.7787	.59782	3.3324	4.9045	1.0114	1.2720	2.0709	1.2163	2.9048	3.7829

#1	.01157	.12364	.02032	.10346	.01014	.00094	.11172	.19355	.00506	.01111	.01021	.01473
#2	.01126	.12293	.01981	.10434	.01063	.00101	.11333	.19010	.00491	.01092	.01064	.01554

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass								
Value			.01500									
Range			30.000%									

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09227	3.4454	.01273	.22878	.01100	.01926	1.2134	.04451	3.1387	.00958	.01157	.00925
Stddev	.00469	.0500	.00036	.00273	.00002	.00021	.0057	.00027	.0306	.00073	.00052	.00177
%RSD	5.0878	1.4519	2.7998	1.1936	.16281	1.1094	.46735	.59753	.97599	7.6059	4.4897	19.074

#1	.09559	3.4101	.01299	.22685	.01101	.01941	1.2174	.04432	3.1170	.00906	.01120	.00801
#2	.08895	3.4808	.01248	.23071	.01099	.01911	1.2094	.04470	3.1603	.01009	.01193	.01050

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01445	.46366	.99223	.10103	.01049	.01456	.00988	.01635	.05996	.01116	.02343	.01462
Stddev	.00172	.00220	.00471	.00155	.00001	.00190	.00010	.00024	.02130	.00009	.00011	.00183
%RSD	11.929	.47505	.47505	1.5362	.05217	13.043	1.0362	1.4928	35.516	.76293	.47742	12.485

#1	.01323	.46522	.99556	.09994	.01048	.01322	.00981	.01618	.07502	.01122	.02351	.01592
#2	.01567	.46210	.98890	.10213	.01049	.01590	.00996	.01652	.04490	.01110	.02335	.01333

Check ?	Chk Pass											
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4935.2	61478.	6735.3
Stddev	9.8	70.	47.2
%RSD	.19839	.11462	.70097

#1	4928.3	61428.	6701.9
#2	4942.2	61527.	6768.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00048	.32597	.04530	.04589	.04670	.00015	-.00098	33.130	-.00006
Stddev	.00024	.00057	.00322	.00069	.00002	.00004	.00125	.062	.00006
%RSD	51.006	.17595	7.1187	1.5046	.04748	28.546	127.15	.18637	107.85

#1	.00065	.32557	.04302	.04540	.04671	.00017	-.00010	33.174	-.00010
#2	.00031	.32638	.04758	.04637	.04668	.00012	-.00187	33.087	-.00001

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	.00191	.00597	8.5208	4.9664	.00471	14.728	.09870	-.00025
Stddev	.00021	.00012	.00006	.0094	.0416	.00015	.075	.00003	.00011
%RSD	263.48	6.2687	1.0402	.10981	.83700	3.2261	.50775	.03427	45.888

#1	-.00023	.00182	.00601	8.5274	4.9370	.00482	14.675	.09868	-.00017
#2	.00007	.00199	.00592	8.5142	4.9958	.00461	14.781	.09873	-.00033

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.480	.00260	W 2.0555	W -.00495	4.0378	-.00414	.00709	18.176	38.897
Stddev	.030	.00031	.0331	.00015	.0675	.00036	.00005	.197	.422
%RSD	.17253	12.108	1.6116	2.9435	1.6727	8.6892	.73680	1.0844	1.0844

#1	17.458	.00282	2.0789	-.00505	4.0856	-.00439	.00713	18.037	38.599
#2	17.501	.00237	2.0321	-.00485	3.9901	-.00388	.00706	18.315	39.195

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass				
High Limit			2.0000	10.000					
Low Limit			-1.0000	-.00300					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00082	.21168	.00173	.00909	.00482	-.02327	.02432	.02760	.00057
Stddev	.00018	.00071	.00087	.00032	.00019	.01133	.00003	.00086	.00186
%RSD	22.205	.33424	50.315	3.4700	3.8666	48.704	.13540	3.1294	328.84

#1	-.00069	.21218	.00112	.00932	.00495	-.01526	.02430	.02699	.00188
#2	-.00095	.21118	.00235	.00887	.00469	-.03128	.02435	.02821	-.00075

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4930.0	61382.	6838.7
Stddev	23.4	125.	7.3
%RSD	.47377	.20391	.10638

#1	4946.5	61471.	6833.6
#2	4913.5	61294.	6843.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00044	.11007	.01278	.10152	.01707	-0.00007	-0.00413	62.524	.00017
Stddev	.00035	.00020	.00091	.00119	.00026	.00004	.00020	.024	.00005
%RSD	80.944	.18098	7.1389	1.1682	1.5320	56.914	4.8928	.03916	26.730

#1	.00019	.10993	.01342	.10236	.01725	-0.00010	-0.00399	62.507	.00014
#2	.00069	.11021	.01213	.10068	.01688	-0.00004	-0.00427	62.541	.00021

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00049	.00012	.00475	.06483	8.4988	.01034	24.714	.04459	.00325
Stddev	.00015	.00015	.00042	.00203	.1044	.00019	.019	.00011	.00015
%RSD	29.877	125.23	8.8006	3.1261	1.2279	1.8032	.07822	.25685	4.6622

#1	-0.00060	.00001	.00446	.06627	8.4250	.01020	24.728	.04451	.00314
#2	-0.00039	.00023	.00505	.06340	8.5726	.01047	24.700	.04467	.00336

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	29.984	.00007	.12701	F -.00908	12.404	-0.00708	.00837	17.306	37.035
Stddev	.733	.00016	.00220	.00205	.017	.00085	.00107	.258	.553
%RSD	2.4440	228.45	1.7331	22.545	.13452	12.003	12.805	1.4934	1.4934

#1	30.503	-0.00004	.12545	-.01053	12.416	-0.00648	.00913	17.489	37.427
#2	29.466	.00019	.12857	-.00764	12.393	-0.00768	.00762	17.124	36.644

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass				
High Limit				200.00					
Low Limit				-.00600					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00063	.35423	-0.00038	.00349	.00602	-0.01210	.02860	.01058	.00013
Stddev	.00009	.00067	.00369	.00017	.00177	.03693	.00004	.00009	.00230
%RSD	15.082	.18814	973.09	5.0006	29.385	305.18	.15238	.82659	1755.4

#1	-0.00070	.35376	-.00299	.00337	.00477	.01401	.02857	.01064	.00176
#2	-0.00056	.35470	.00223	.00361	.00727	-.03822	.02863	.01052	-.00150

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4794.7	59839.	6714.1
Stddev	20.3	150.	10.0
%RSD	.42430	.25067	.14841

#1	4780.3	59945.	6721.2
#2	4809.1	59733.	6707.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00059	.06029	.01384	.05296	.01058	-.00003	-.00349	53.063	.00045
Stddev	.00032	.00009	.00063	.00035	.00030	.00004	.00107	.132	.00004
%RSD	54.728	.14443	4.5507	.67015	2.8523	125.46	30.643	.24839	9.1624

#1	.00081	.06035	.01429	.05271	.01037	.00000	-.00274	53.156	.00048
#2	.00036	.06023	.01340	.05321	.01080	-.00006	-.00425	52.970	.00042

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00074	-.00034	.00581	.31108	6.3234	.00789	27.043	.09444	-.00158
Stddev	.00020	.00009	.00000	.00749	.0203	.00199	.001	.00017	.00014
%RSD	27.159	25.541	.07550	2.4080	.32109	25.220	.00408	.17852	8.5956

#1	-.00088	-.00028	.00580	.30579	6.3090	.00930	27.043	.09432	-.00148
#2	-.00060	-.00040	.00581	.31638	6.3377	.00649	27.042	.09456	-.00167

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.166	.00054	.09850	F -.00818	22.239	-.00388	.00840	18.982	40.622
Stddev	.268	.00016	.00023	.00129	.035	.00076	.00180	.242	.519
%RSD	1.5594	30.326	.23588	15.759	.15836	19.541	21.480	1.2768	1.2768

#1	16.976	.00043	.09834	-.00909	22.264	-.00442	.00967	18.811	40.255
#2	17.355	.00066	.09867	-.00727	22.215	-.00334	.00712	19.154	40.989

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass				
High Limit				200.00					
Low Limit				-.00600					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00069	.24954	.00116	.00190	.00617	-.01032	.00775	.01454	-.00082
Stddev	.00105	.00021	.00179	.00013	.00034	.02674	.00048	.00032	.00170
%RSD	152.51	.08400	155.01	6.9393	5.5255	259.09	6.2125	2.1859	205.67

#1	.00005	.24969	-.00011	.00200	.00641	-.02923	.00741	.01431	.00037
#2	-.00143	.24939	.00242	.00181	.00593	.00859	.00809	.01476	-.00202

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4805.1	60298.	6710.6
Stddev	10.3	172.	42.9
%RSD	.21523	.28453	.63955

#1	4797.8	60419.	6741.0
#2	4812.4	60176.	6680.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00067	.00396	.01262	.06490	.01150	.00001	-.00233	69.622	.00047
Stddev	.00007	.00004	.00486	.00082	.00016	.00001	.00041	.121	.00023
%RSD	9.8474	1.0533	38.506	1.2680	1.3945	55.422	17.561	.17433	47.980

#1	.00072	.00393	.01606	.06432	.01138	.00001	-.00204	69.708	.00031
#2	.00062	.00399	.00919	.06548	.01161	.00001	-.00261	69.536	.00063

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00077	.00372	.01216	.00931	5.6246	.01135	36.798	.21055	-.00092
Stddev	.00017	.00008	.00024	.00045	.1279	.00091	.076	.00027	.00004
%RSD	22.697	2.2819	1.9548	4.8732	2.2741	7.9917	.20559	.12750	3.9281

#1	-.00065	.00378	.01233	.00899	5.5342	.01071	36.852	.21074	-.00095
#2	-.00089	.00366	.01199	.00963	5.7150	.01200	36.745	.21036	-.00090

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	20.343	.00107	.08756	F -.00873	26.138	-.00687	.01447	22.603	48.370
Stddev	.610	.00002	.00017	.00007	.020	.00029	.00188	.021	.044
%RSD	2.9985	1.9744	.19292	.74602	.07781	4.2850	12.994	.09195	.09195

#1	19.912	.00105	.08744	-.00869	26.123	-.00666	.01314	22.618	48.402
#2	20.775	.00108	.08767	-.00878	26.152	-.00708	.01580	22.588	48.339

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass				
High Limit				200.00					
Low Limit				-.00600					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00068	.30395	-.00190	-.00061	.00793	-.00598	.01242	.02264	-.00137
Stddev	.00054	.00026	.00036	.00007	.00077	.04444	.00035	.00012	.00082
%RSD	79.769	.08582	18.718	12.227	9.7064	742.94	2.7800	.50859	59.897

#1	-.00030	.30414	-.00165	-.00067	.00847	-.03741	.01267	.02256	-.00079
#2	-.00107	.30377	-.00215	-.00056	.00738	.02544	.01218	.02272	-.00196

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4791.9	60068.	6685.1
Stddev	8.3	28.	7.0
%RSD	.17416	.04586	.10404

#1	4797.8	60048.	6680.2
#2	4786.0	60087.	6690.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00062	.00516	.01139	.15554	.02616	-.00004	-.00545	77.103	.00017
Stddev	.00006	.00065	.00079	.00112	.00002	.00002	.00075	.119	.00042
%RSD	9.7809	12.537	6.9132	.72180	.09075	59.465	13.699	.15437	251.49

#1	.00066	.00562	.01083	.15475	.02618	-.00006	-.00492	77.019	-.00013
#2	.00058	.00470	.01195	.15634	.02614	-.00002	-.00597	77.187	.00046

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00071	.00024	.00283	.46917	7.0017	.01316	49.863	.06087	-.00222
Stddev	.00009	.00005	.00046	.00003	.1651	.00174	.244	.00003	.00014
%RSD	13.218	20.254	16.102	.00602	2.3576	13.209	.48959	.05321	6.4295

#1	-.00064	.00021	.00315	.46915	7.1184	.01439	50.035	.06085	-.00232
#2	-.00078	.00028	.00251	.46919	6.8850	.01193	49.690	.06090	-.00212

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	28.063	.00401	.04863	F -.01066	32.137	-.00499	.01283	20.700	44.298
Stddev	.081	.00030	.00257	.00117	.018	.00012	.00068	.219	.469
%RSD	.28902	7.4212	5.2783	10.940	.05737	2.4051	5.3340	1.0596	1.0596

#1	28.006	.00422	.04682	-.00983	32.124	-.00508	.01234	20.545	43.966
#2	28.121	.00380	.05045	-.01148	32.150	-.00491	.01331	20.855	44.630

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass				
High Limit				200.00					
Low Limit				-.00600					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00098	.30495	-.00046	-.00024	.00784	-.02321	.00237	.01551	-.00021
Stddev	.00087	.00017	.00070	.00022	.00127	.01648	.00010	.00015	.00010
%RSD	89.031	.05464	152.22	93.235	16.183	70.996	4.1328	.99244	49.297

#1	-.00159	.30484	-.00095	-.00040	.00873	-.03486	.00243	.01562	-.00014
#2	-.00036	.30507	.00004	-.00008	.00694	-.01156	.00230	.01540	-.00028

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4770.2	59884.	6725.4
Stddev	9.2	316.	28.2
%RSD	.19222	.52765	.41957

#1	4763.7	59661.	6745.3
#2	4776.7	60108.	6705.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00025	.00931	.01188	.11301	.02030	.00003	-.00375	95.008	.00019
Stddev	.00018	.00023	.00067	.00062	.00048	.00002	.00074	.440	.00012
%RSD	72.011	2.4772	5.6068	.54781	2.3467	61.672	19.621	.46259	63.383

#1	.00012	.00915	.01235	.11345	.01996	.00004	-.00323	94.697	.00011
#2	.00038	.00947	.01141	.11258	.02064	.00002	-.00427	95.319	.00028

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00040	-.00025	.00430	.00386	5.9283	.01281	41.132	.04400	-.00268
Stddev	.00013	.00002	.00022	.00302	.0033	.00127	.018	.00014	.00027
%RSD	33.149	6.6710	5.1453	78.167	.05512	9.8867	.04416	.30820	9.9174

#1	-.00031	-.00024	.00445	.00600	5.9307	.01370	41.145	.04391	-.00249
#2	-.00049	-.00026	.00414	.00173	5.9260	.01191	41.120	.04410	-.00287

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	20.242	.00088	.01042	F -.01270	29.883	-.00443	.01156	16.195	34.657
Stddev	.140	.00046	.00049	.00032	.008	.00364	.00139	.030	.064
%RSD	.69135	52.853	4.7233	2.5222	.02615	82.178	12.025	.18511	.18511

#1	20.143	.00055	.01077	-.01293	29.877	-.00186	.01057	16.174	34.612
#2	20.341	.00121	.01007	-.01248	29.888	-.00701	.01254	16.216	34.703

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass				
High Limit				200.00					
Low Limit				-.00600					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00238	.32964	-.00020	-.00088	.00865	-.02493	.00179	.05165	-.00144
Stddev	.00084	.00123	.00089	.00028	.00140	.01753	.00027	.00047	.00271
%RSD	35.135	.37387	451.44	31.780	16.236	70.345	15.167	.91627	187.47

#1	-.00179	.32877	-.00083	-.00068	.00964	-.01253	.00160	.05199	-.00336
#2	-.00298	.33051	.00043	-.00108	.00765	-.03732	.00199	.05132	.00047

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4742.3	60139.	6695.8
Stddev	11.6	264.	35.0
%RSD	.24483	.43938	.52202

#1	4750.5	59952.	6720.5
#2	4734.1	60325.	6671.1

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00119	48.188	.00346	.00200	.00045	.00009	.98210	-.00139	-.00004	-.00098	.00058
Stddev	.00088	.151	.00060	.00056	.00022	.00009	.00226	.00380	.00026	.00049	.00014
%RSD	74.138	.31321	17.486	27.957	47.806	105.07	.23014	273.36	710.27	49.393	24.702

#1	.00182	48.081	.00303	.00240	.00060	.00015	.98050	-.00407	.00014	-.00132	.00069
#2	.00057	48.294	.00388	.00160	.00030	.00002	.98370	.00130	-.00022	-.00064	.00048

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00601	46.146	.25537	.00507	.00660	-.00228	-.00063	253.94	.00159	.00606	.00066
Stddev	.00088	.253	.00664	.00116	.00751	.00004	.00001	.45	.00008	.00176	.00024
%RSD	14.650	.54858	2.5996	22.786	113.73	1.8688	2.1324	.17674	5.0059	29.038	36.157

#1	.00663	45.967	.26006	.00425	.00129	-.00231	-.00062	254.26	.00153	.00730	.00049
#2	.00538	46.325	.25067	.00589	.01191	-.00225	-.00064	253.63	.00164	.00481	.00083

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4.6399	-.00163	-.00308	-.01531	-.03277	-.00696	.00034	4.9803	-.00097	.00213	W 10.734
Stddev	.0158	.00019	.00296	.01088	.02329	.00087	.00007	.0130	.00051	.00154	.103
%RSD	.34042	11.926	96.105	71.075	71.075	12.437	21.922	.26153	52.336	72.142	.95528

#1	4.6287	-.00177	-.00518	-.00762	-.01630	-.00635	.00039	4.9895	-.00133	.00104	10.807
#2	4.6510	-.00149	-.00099	-.02301	-.04924	-.00757	.00029	4.9710	-.00061	.00322	10.662

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value	5.0000										10.000
Range	-5.0000%										5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00283	.00098	.00324
Stddev	.00077	.00049	.00568
%RSD	27.169	49.881	175.23

#1	.00338	.00132	-.00078
#2	.00229	.00063	.00726

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4718.6	59006.	6601.0
Stddev	22.6	5.	19.0
%RSD	.47815	.00778	.28803

#1	4734.5	59003.	6614.4
#2	4702.6	59009.	6587.5

Sample Name: CCV-3333645 Acquired: 6/16/2015 22:17:16 Type: QC

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51824	F .57992	.99472	.50367	.49974	.47450	-.00065	4.7726	.50162	.52369	.49085	.50420
Stddev	.00056	.00052	.00200	.00147	.00155	.00040	.00145	.0093	.00193	.00066	.00025	.00118
%RSD	.10820	.09014	.20094	.29255	.30927	.08343	222.53	.19540	.38442	.12656	.05133	.23384

#1	.51863	.57955	.99614	.50471	.50083	.47478	-.00168	4.7792	.50298	.52416	.49068	.50337
#2	.51784	.58029	.99331	.50263	.49865	.47422	.00037	4.7660	.50026	.52323	.49103	.50504

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass				
Value		.50000										
Range		10.490%										

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.3103	52.833	1.0229	21.124	.52229	.49878	5.3444	.52491	1.0617	1.0557	.01795	1.0091
Stddev	.0010	.089	.0056	.021	.00038	.00081	.0345	.00064	.0015	.0007	.00053	.0007
%RSD	.04294	.16917	.55110	.10166	.07267	.16286	.64567	.12121	.14107	.06454	2.9676	.07272

#1	2.3096	52.896	1.0269	21.139	.52202	.49935	5.3688	.52536	1.0627	1.0561	.01833	1.0085
#2	2.3110	52.770	1.0189	21.108	.52256	.49820	5.3200	.52446	1.0606	1.0552	.01757	1.0096

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0064	4.7824	10.234	.99532	.49667	-.00142	.51575	1.0134	-.01641	.52213	.51764	.49353
Stddev	.0010	.0037	.008	.00418	.00109	.00088	.00052	.0114	.02284	.00110	.00201	.00013
%RSD	.10149	.07698	.07698	.42038	.22021	62.247	.10115	1.1278	139.18	.21012	.38876	.02662

#1	1.0057	4.7798	10.229	.99236	.49744	-.00079	.51538	1.0053	-.00026	.52136	.51622	.49344
#2	1.0071	4.7850	10.240	.99828	.49590	-.00204	.51612	1.0215	-.03256	.52291	.51907	.49363

Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass				
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4855.6	60494.	6728.0
Stddev	3.9	40.	28.5
%RSD	.07954	.06551	.42396

#1	4858.3	60522.	6707.9
#2	4852.8	60466.	6748.2

Sample Name: CCB Acquired: 6/16/2015 22:19:41 Type: QC
 Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00065	.00000	W .00647	-.00039	-.00017	.00002	.00618	-.01033	-.00021	.00008	-.00012
Stddev	.00065	.0003	.00252	.00052	.00035	.00004	.00062	.00071	.00014	.00000	.00004
%RSD	100.77	6856.5	39.008	134.07	202.05	252.19	10.068	6.8565	65.902	4.2625	33.994

#1	.00019	-.00019	.00468	-.00002	.00007	-.00001	.00574	-.00983	-.00011	.00008	-.00015
#2	.00111	.00018	.00825	-.00076	-.00042	.00005	.00662	-.01083	-.00031	.00008	-.00009

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass							
High Limit			.00500								
Low Limit			-.00500								

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00060	-.00258	.17182	.00346	.00296	-.00002	-.00017	.13188	.00025	.00096	.00032
Stddev	.00026	.00246	.04828	.00264	.00875	.00000	.00002	.00182	.00051	.00141	.00032
%RSD	43.303	95.373	28.099	76.428	295.72	22.651	11.715	1.3814	208.24	147.88	98.569

#1	-.00078	-.00432	.13768	.00159	.00914	-.00001	-.00015	.13317	.00061	-.00004	.00010
#2	-.00041	-.00084	.20595	.00532	-.00323	-.00002	-.00018	.13059	-.00012	.00195	.00055

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00965	-.00072	-.00134	-.00022	-.00046	-.00083	.00001	-.00153	-.00029	.00135	.02518
Stddev	.00135	.00160	.00258	.02104	.04502	.00017	.00001	.00089	.00047	.00145	.00224
%RSD	14.025	221.06	192.04	9719.5	9719.5	20.149	143.19	58.637	158.44	107.55	8.8800

#1	.01061	.00041	.00048	-.01509	-.03230	-.00071	.00000	-.00216	-.00062	.00032	.02676
#2	.00870	-.00185	-.00316	.01466	.03137	-.00095	.00002	-.00089	.00004	.00237	.02360

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00053	.00088	.00000
Stddev	.00005	.00055	.0006
%RSD	9.4333	62.129	398040.

#1	.00050	.00049	-.00046
#2	.00057	.00127	.00046

Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4974.3	62212.	6729.5
Stddev	1.6	392.	12.8
%RSD	.03171	.62973	.19040

#1	4973.2	62489.	6720.4
#2	4975.4	61935.	6738.5

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01136	.12546	.01736	.10250	.01019	.00099	.11449	.20082	.00526	.01117	.01046	.01528
Stddev	.00028	.00007	.00312	.00053	.00000	.00003	.00050	.00294	.00016	.00006	.00010	.00007
%RSD	2.4830	.05620	17.949	.51394	.02207	2.6144	.43507	1.4660	3.0535	.58043	.91728	.45744

#1	.01116	.12541	.01957	.10288	.01019	.00097	.11414	.19874	.00537	.01113	.01053	.01533
#2	.01156	.12551	.01516	.10213	.01019	.00101	.11484	.20291	.00514	.01122	.01039	.01523

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09132	3.5086	.01252	.22576	.01106	.01973	1.2193	.04480	3.1129	.00904	.00887	F .00643
Stddev	.00117	.0371	.00032	.00070	.00006	.00026	.0048	.00043	.0211	.00018	.00080	.00053
%RSD	1.2773	1.0558	2.5595	.30951	.54702	1.3299	.39498	.95697	.67939	1.9690	9.0639	8.2534

#1	.09214	3.4824	.01230	.22527	.01110	.01992	1.2159	.04449	3.0979	.00917	.00830	.00681
#2	.09049	3.5348	.01275	.22625	.01102	.01954	1.2227	.04510	3.1278	.00892	.00943	.00606

Check ?	Chk Pass	None	Chk Fail									
Value												.01000
Range												-30.000%

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01403	.45766	.97940	.10269	.01047	.01440	.00991	.01569	.07173	.01138	.02342	.01629
Stddev	.00123	.01054	.02255	.00032	.00008	.00036	.00017	.00174	.03638	.00054	.00039	.00070
%RSD	8.7904	2.3027	2.3027	.30924	.77962	2.4749	1.7226	11.081	50.718	4.7020	1.6700	4.2932

#1	.01316	.46512	.99535	.10291	.01053	.01466	.01003	.01691	.09745	.01176	.02370	.01580
#2	.01490	.45021	.96345	.10246	.01041	.01415	.00978	.01446	.04600	.01100	.02315	.01679

Check ?	Chk Pass											
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4912.1	62291.	6715.9
Stddev	2.0	304.	8.8
%RSD	.03983	.48867	.13050

#1	4913.5	62506.	6709.7
#2	4910.7	62076.	6722.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00071	.00530	.00232	.00077	-0.00001	.00017	.00414	.02175	-0.00015
Stddev	.00026	.00017	.00076	.00020	.00056	.00002	.00095	.00189	.00012
%RSD	36.449	3.2856	32.655	25.383	7463.0	11.386	23.006	8.6946	83.245

#1	.00053	.00518	.00178	.00064	-0.00040	.00019	.00347	.02309	-0.00006
#2	.00089	.00542	.00285	.00091	.00039	.00016	.00481	.02042	-0.00024

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00017	.00009	-0.00021	.00276	.15330	.00060	-0.00040	.00013	-0.00014
Stddev	.00013	.00011	.00010	.00005	.00579	.00118	.00101	.00011	.00014
%RSD	77.222	130.05	48.684	1.9537	3.7752	197.12	253.83	81.737	98.350

#1	.00008	.00017	-0.00028	.00272	.15739	.00143	-0.00111	.00005	-0.00024
#2	.00027	.00001	-0.00014	.00279	.14921	-0.00023	.00032	.00021	-0.00004

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09687	.00015	.00196	-0.00082	.02014	-0.00148	-0.00296	.01383	.02960
Stddev	.00365	.00029	.00017	.00003	.00168	.00123	.00131	.02763	.05912
%RSD	3.7687	192.57	8.6151	4.0690	8.3360	83.587	44.236	199.72	199.72

#1	.09945	-0.00006	.00208	-0.00079	.02133	-0.00060	-0.00389	.03337	.07140
#2	.09428	.00036	.00184	-0.00084	.01895	-0.00235	-0.00203	-0.00570	-0.1220

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00056	.00020	.00003	-0.00052	-0.00008	.00403	.00008	.00083	-0.00027
Stddev	.00039	.00009	.00136	.00025	.00156	.03220	.00016	.00022	.00079
%RSD	69.585	43.577	4865.8	47.465	1941.6	798.68	188.81	26.497	294.18

#1	-0.00084	.00026	.00099	-0.00034	.00102	-0.1874	.00020	.00068	.00029
#2	-0.00029	.00014	-0.00093	-0.00069	-0.00118	.02680	-0.00003	.00099	-0.00083

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4936.2	62977.	6750.8
Stddev	6.7	281.	22.7
%RSD	.13579	.44653	.33565

#1	4940.9	62778.	6766.8
#2	4931.4	63176.	6734.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05269	2.1986	.99093	1.0113	1.9961	.04723	1.9758	47.366	.09846
Stddev	.00023	.0052	.00750	.0008	.0019	.00010	.0008	.163	.00004
%RSD	.43390	.23654	.75685	.08195	.09651	.20480	.04300	.34475	.04501

#1	.05253	2.1949	.98563	1.0119	1.9948	.04716	1.9764	47.251	.09849
#2	.05286	2.2023	.99624	1.0107	1.9975	.04730	1.9752	47.482	.09843

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49862	F .19722	.24834	.91319	52.991	1.0214	51.415	.50972	1.0075
Stddev	.00474	.00066	.00007	.00275	.039	.0015	.045	.00074	.0029
%RSD	.95157	.33718	.03016	.30079	.07294	.14284	.08663	.14512	.28552

#1	.49527	.19769	.24828	.91513	52.964	1.0224	51.447	.51024	1.0096
#2	.50198	.19675	.24839	.91125	53.018	1.0203	51.384	.50919	1.0055

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	52.071	.50254	10.461	.49276	1.8699	.48476	1.9654	9.3777	20.068
Stddev	.033	.00036	.001	.00138	.0004	.00086	.0049	.0730	.156
%RSD	.06352	.07150	.00915	.28009	.02149	.17677	.24698	.77892	.77892

#1	52.048	.50280	10.462	.49178	1.8702	.48415	1.9688	9.3260	19.958
#2	52.094	.50229	10.460	.49373	1.8696	.48536	1.9620	9.4293	20.179

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9370	.98924	.96746	1.0183	1.9195	2.0540	.51324	.50222	.47937
Stddev	.0013	.00128	.00114	.0045	.0065	.0077	.00111	.00345	.00753
%RSD	.06883	.12966	.11759	.43800	.34028	.37576	.21696	.68729	1.5702

#1	1.9380	.98834	.96665	1.0215	1.9241	2.0594	.51403	.50466	.47405
#2	1.9361	.99015	.96826	1.0151	1.9149	2.0485	.51245	.49978	.48470

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4715.5	59950.	6703.9
Stddev	4.5	133.	12.9
%RSD	.09646	.22234	.19232

#1	4712.2	59855.	6713.0
#2	4718.7	60044.	6694.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00034	.03206	.03903	.54399	.11072	-.00001	.00092	93.398	.00064
Stddev	.00050	.00040	.00047	.00273	.00042	.00010	.00101	.015	.00033
%RSD	146.34	1.2382	1.1926	.50258	.37534	1503.6	109.32	.01597	51.353

#1	-.00001	.03178	.03870	.54592	.11042	-.00008	.00164	93.388	.00087
#2	.00069	.03234	.03936	.54205	.11101	.00007	.00021	93.409	.00041

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00216	-.00005	.00032	.04879	W 286.49	W 2.5300	373.85	.31599	-.00511
Stddev	.00013	.00001	.00045	.00102	1.73	.0024	2.20	.00043	.00034
%RSD	5.8443	27.469	142.67	2.0887	.60434	.09272	.58908	.13706	6.6324

#1	-.00207	-.00004	.00000	.04951	285.27	2.5317	375.40	.31568	-.00487
#2	-.00225	-.00006	.00064	.04807	287.71	2.5283	372.29	.31630	-.00535

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit					100.00	2.0000			
Low Limit					-.50000	-.01000			

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 11739.	.00225	W 3.9372	F -.01175	F 892.50	-.00677	.01206	10.304	22.051
Stddev	89.	.00012	.0264	.00047	2.41	.00175	.00047	.024	.051
%RSD	.75577	5.1916	.67028	4.0074	.26954	25.794	3.9297	.23031	.23031

#1	11676.	.00233	3.9185	-.01208	894.20	-.00554	.01173	10.321	22.087
#2	11802.	.00217	3.9559	-.01142	890.80	-.00801	.01240	10.287	22.015

Check ?	Chk Fail	Chk Pass	Chk Warn	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10000.		2.0000	200.00	200.00				
Low Limit	9.0000		-1.0000	-.00600	-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00191	1.3569	-.00229	.00120	.00889	.00189	.00315	.00640	.00213
Stddev	.00036	.0032	.00129	.00070	.00189	.00014	.00072	.00080	.00088
%RSD	19.008	.23293	56.408	58.118	21.217	7.3588	22.748	12.520	41.313

#1	-.00217	1.3547	-.00138	.00169	.01023	.00199	.00366	.00696	.00275
#2	-.00165	1.3592	-.00321	.00071	.00756	.00180	.00265	.00583	.00150

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3414.3	42323.	6230.4
Stddev	21.4	155.	39.7
%RSD	.62591	.36678	.63671

#1	3429.4	42213.	6202.3
#2	3399.2	42433.	6258.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00034	.00849	.01319	.13526	.02896	.00008	.00398	25.087	.00007
Stddev	.00013	.00024	.00239	.00125	.00030	.00001	.00117	.040	.00012
%RSD	38.054	2.8436	18.085	.92672	1.0333	9.6711	29.472	.16138	172.06

#1	.00025	.00866	.01488	.13437	.02917	.00007	.00315	25.058	-.00002
#2	.00043	.00832	.01150	.13614	.02875	.00008	.00481	25.116	.00016

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00171	-.00006	.00143	.01447	73.539	.59783	100.21	.08307	-.00249
Stddev	.00007	.00014	.00084	.00141	.073	.00070	.19	.00020	.00023
%RSD	4.2071	225.68	58.870	9.7333	.09959	.11723	.19200	.24046	9.2276

#1	-.00166	-.00016	.00203	.01347	73.591	.59734	100.08	.08293	-.00233
#2	-.00176	.00004	.00084	.01547	73.487	.59833	100.35	.08321	-.00266

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 2922.1	.00027	.93845	W -.00451	F 215.95	-.00519	.00021	2.4815	5.3103
Stddev	6.8	.00014	.02145	.00062	.60	.00046	.00079	.0291	.0622
%RSD	.23212	49.241	2.2858	13.682	.27782	8.8370	371.38	1.1712	1.1712

#1	2917.3	.00037	.92329	-.00494	215.52	-.00551	.00077	2.5020	5.3543
#2	2926.9	.00018	.95362	-.00407	216.37	-.00487	-.00034	2.4609	5.2663

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00			10.000	200.00				
Low Limit	11.000			-.00300	-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00146	.34760	-.00396	-.00008	.00581	-.00407	-.00024	.00296	.00183
Stddev	.00007	.00082	.00143	.00005	.00258	.00491	.00003	.00017	.00288
%RSD	4.6512	.23561	36.077	56.966	44.341	120.65	13.183	5.6584	157.96

#1	-.00141	.34702	-.00295	-.00005	.00399	-.00060	-.00022	.00308	-.00021
#2	-.00151	.34817	-.00496	-.00012	.00763	-.00754	-.00026	.00284	.00387

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4148.9	50810.	6469.9
Stddev	19.4	232.	1.5
%RSD	.46728	.45738	.02360

#1	4135.2	50974.	6471.0
#2	4162.6	50645.	6468.8

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06242	1.9536	W 3.0681	1.1504	1.5079	2.1652	.04487	F 1.9562	149.24
Stddev	.00131	.0005	.0335	.0034	.0022	.0024	.00009	.0107	1.03
%RSD	2.0997	.02382	1.0922	.29860	.14732	.11217	.19755	.54675	.68932

#1	.06149	1.9540	3.0918	1.1528	1.5094	2.1669	.04494	1.9637	149.97
#2	.06334	1.9533	3.0444	1.1480	1.5063	2.1635	.04481	1.9486	148.51

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit			500.00					.10000	
Low Limit			3.2000					-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10998	.45254	W .18774	.25115	.90211	W 384.76	W 4.0948	461.63	.84985
Stddev	.00051	.00077	.00036	.00001	.00229	1.27	.0064	.91	.00058
%RSD	.46419	.17034	.19288	.00323	.25436	.32908	.15724	.19681	.06828

#1	.11034	.45309	.18749	.25115	.90374	385.65	4.0903	462.27	.85026
#2	.10962	.45200	.18800	.25116	.90049	383.86	4.0994	460.99	.84944

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass
High Limit			.10000			100.00	2.0000		
Low Limit			-.01000			-.50000	-.01000		

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.97427	F 13224.	.45459	W 16.129	.39660	F 976.74	.50317	1.9135	20.722
Stddev	.00121	15.	.00012	.061	.00043	4.48	.00026	.0136	.082
%RSD	.12440	.11355	.02659	.37516	.10719	.45895	.05215	.71291	.39432

#1	.97513	13235.	.45451	16.172	.39690	979.91	.50336	1.9038	20.664
#2	.97341	13214.	.45468	16.086	.39630	973.57	.50299	1.9231	20.780

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		10000.		2.0000		200.00			
Low Limit		9.0000		-1.0000		-.20000			

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	44.345	1.6985	2.5697	.98363	1.0098	1.4056	1.9341	.52177	.50009
Stddev	.175	.0230	.0060	.00111	.0011	.0243	.0591	.00035	.00435
%RSD	.39432	1.3514	.23192	.11288	.10535	1.7255	3.0533	.06624	.86947

#1	44.222	1.6822	2.5739	.98442	1.0091	1.3885	1.8924	.52153	.50317
#2	44.469	1.7147	2.5655	.98285	1.0106	1.4228	1.9759	.52202	.49702

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.48055
Stddev	.00392
%RSD	.81657

#1	.47777
#2	.48332

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-70456-e-1-b ms Acquired: 6/16/2015 22:36:29 Type: Unk
Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
User: S. Scott Prep Date: Custom ID2: Custom ID3:
Comment: 281304 6010B

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	3318.9	42000.	6193.0
Stddev	9.9	119.	64.5
%RSD	.29812	.28239	1.0407
#1	3325.9	41916.	6147.5
#2	3311.9	42084.	6238.6

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06004	1.9559	W 2.9687	1.1354	1.4725	2.1321	.04440	F 1.9436	143.11
Stddev	.00022	.0063	.0387	.0095	.0117	.0145	.00014	.0154	.37
%RSD	.36962	.32059	1.3049	.83225	.79089	.68143	.31893	.79261	.25656

#1	.05989	1.9515	2.9961	1.1287	1.4642	2.1423	.04450	1.9327	143.37
#2	.06020	1.9603	2.9413	1.1421	1.4807	2.1218	.04429	1.9545	142.85

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit			500.00					.10000	
Low Limit			3.2000					-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10870	.45132	W .18753	.24391	.89289	W 372.39	W 3.9135	448.30	.83241
Stddev	.00101	.00201	.00029	.00207	.00139	.12	.0385	1.74	.00246
%RSD	.92697	.44478	.15345	.84935	.15597	.03312	.98478	.38876	.29570

#1	.10798	.44990	.18732	.24537	.89190	372.31	3.9408	447.07	.83415
#2	.10941	.45274	.18773	.24244	.89387	372.48	3.8863	449.54	.83067

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass
High Limit			.10000			100.00	2.0000		
Low Limit			-.01000			-.50000	-.01000		

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.97474	F 12824.	.45280	W 15.788	.40014	F 940.26	.49724	1.9300	19.981
Stddev	.00426	93.	.00118	.122	.00293	6.88	.00489	.0077	.079
%RSD	.43676	.72702	.26055	.76995	.73322	.73184	.98387	.40138	.39361

#1	.97173	12890.	.45197	15.702	.39807	935.39	.49378	1.9245	19.925
#2	.97775	12758.	.45364	15.874	.40222	945.13	.50070	1.9355	20.037

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		10000.		2.0000		200.00			
Low Limit		9.0000		-1.0000		-.20000			

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	42.759	1.7085	2.4699	.97313	.99994	1.4270	1.9337	.51702	.51275
Stddev	.168	.0018	.0181	.00144	.00426	.0046	.0559	.00031	.00683
%RSD	.39361	.10404	.73292	.14841	.42569	.32089	2.8903	.05961	1.3314

#1	42.640	1.7072	2.4828	.97211	1.0030	1.4238	1.9732	.51681	.51758
#2	42.878	1.7097	2.4571	.97415	.99693	1.4303	1.8942	.51724	.50793

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.47370
Stddev	.00014
%RSD	.02957

#1	.47360
#2	.47380

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-70456-e-1-c msd Acquired: 6/16/2015 22:40:16 Type: Unk
Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
User: S. Scott Prep Date: Custom ID2: Custom ID3:
Comment: 281304 6010B

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	3315.8	40978.	6119.4
Stddev	14.4	63.	108.8
%RSD	.43506	.15353	1.7781
#1	3305.6	40933.	6196.3
#2	3326.0	41022.	6042.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00002	.29554	.00461	.37279	.27436	.00016	.00050	12.661	.00160
Stddev	.00051	.00201	.00058	.00345	.00009	.00004	.00218	.013	.00008
%RSD	2383.7	.68126	12.662	.92566	.03433	24.459	435.65	.09913	4.8343

#1	-.00034	.29411	.00420	.37035	.27443	.00013	-.00104	12.652	.00155
#2	.00038	.29696	.00502	.37523	.27430	.00019	.00204	12.670	.00166

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00101	.00091	.00217	.36727	69.284	.19492	8.9847	.08995	-.00130
Stddev	.00006	.00013	.00039	.00705	.103	.00105	.0302	.00006	.00002
%RSD	6.1019	14.377	17.975	1.9203	.14937	.53711	.33666	.06971	1.3766

#1	-.00097	.00081	.00245	.37225	69.357	.19566	8.9633	.08991	-.00132
#2	-.00106	.00100	.00190	.36228	69.211	.19418	9.0061	.08999	-.00129

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	497.75	.00106	.64180	W -.00403	.74324	-.00419	.00558	17.168	36.740
Stddev	.71	.00033	.00299	.00097	.01638	.00054	.00087	.221	.473
%RSD	.14305	31.276	.46634	24.058	2.2038	12.810	15.566	1.2883	1.2883

#1	497.24	.00083	.64392	-.00335	.75482	-.00381	.00620	17.325	37.075
#2	498.25	.00130	.63969	-.00472	.73166	-.00457	.00497	17.012	36.405

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.00300					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00081	.12052	-.00175	.00854	.00404	-.02850	.00100	.00552	-.00111
Stddev	.00006	.00035	.00039	.00005	.00151	.01560	.00022	.00042	.00109
%RSD	7.7146	.28959	22.445	.58723	37.240	54.744	21.797	7.5781	98.663

#1	-.00077	.12076	-.00202	.00857	.00511	-.01747	.00115	.00581	-.00188
#2	-.00086	.12027	-.00147	.00850	.00298	-.03954	.00085	.00522	-.00033

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4609.0	58923.	6679.4
Stddev	11.2	75.	10.3
%RSD	.24383	.12719	.15443

#1	4601.1	58976.	6686.7
#2	4617.0	58870.	6672.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00025	.00719	.00161	.34593	.20639	-.00005	-.00120	15.446	.00034
Stddev	.00045	.00023	.00069	.00001	.00106	.00004	.00011	.017	.00005
%RSD	180.11	3.1939	42.598	.00361	.51252	98.026	9.4560	.10822	14.011

#1	-.00007	.00703	.00210	.34592	.20564	-.00008	-.00128	15.434	.00031
#2	.00057	.00735	.00113	.34594	.20714	-.00001	-.00112	15.457	.00037

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00119	-.00002	.00177	.09313	40.962	.25069	11.238	.10510	-.00217
Stddev	.00027	.00010	.00060	.00288	.064	.00176	.009	.00025	.00024
%RSD	23.008	417.21	33.956	3.0932	.15739	.70038	.07766	.23621	10.904

#1	-.00138	-.00010	.00134	.09109	40.916	.24945	11.232	.10492	-.00233
#2	-.00100	.00005	.00219	.09517	41.007	.25194	11.244	.10527	-.00200

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	206.20	-.00011	.28453	W -.00532	.24460	-.00458	.00303	22.646	48.463
Stddev	.14	.00035	.00196	.00021	.00594	.00028	.00264	.161	.345
%RSD	.06717	327.16	.68995	4.0301	2.4299	6.0764	86.856	.71193	.71193

#1	206.30	.00014	.28314	-.00517	.24880	-.00477	.00117	22.532	48.219
#2	206.10	-.00036	.28592	-.00547	.24039	-.00438	.00490	22.760	48.707

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.00300					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00037	.13627	-.00234	-.00009	.00347	.00729	.00026	.00193	-.00127
Stddev	.00021	.00068	.00198	.00008	.00025	.02167	.00014	.00053	.00017
%RSD	55.819	.50124	84.556	90.072	7.2300	297.20	55.405	27.507	13.748

#1	-.00051	.13579	-.00094	-.00003	.00365	-.00803	.00016	.00156	-.00114
#2	-.00022	.13675	-.00373	-.00014	.00329	.02262	.00036	.00231	-.00139

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4746.7	61229.	6840.0
Stddev	7.7	103.	11.8
%RSD	.16156	.16881	.17250

#1	4741.3	61156.	6831.6
#2	4752.1	61302.	6848.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00082	.04565	.01058	.41723	.58258	-.00001	-.00040	40.337	.00035
Stddev	.00025	.00072	.00093	.00121	.00191	.00002	.00229	.103	.00008
%RSD	30.538	1.5821	8.8065	.28924	.32790	275.47	577.00	.25449	23.690

#1	.00100	.04616	.01124	.41809	.58123	.00001	.00122	40.265	.00041
#2	.00064	.04514	.00992	.41638	.58393	-.00002	-.00202	40.410	.00029

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00163	-.00004	.00180	.08713	W 118.52	.33989	38.605	.26195	-.00040
Stddev	.00016	.00018	.00007	.00160	.31	.00449	.016	.00106	.00014
%RSD	10.004	430.47	3.9838	1.8379	.26225	1.3204	.04145	.40651	34.599

#1	-.00174	.00009	.00185	.08600	118.30	.33671	38.616	.26271	-.00030
#2	-.00151	-.00017	.00175	.08827	118.74	.34306	38.594	.26120	-.00050

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					100.00				
Low Limit					-.50000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1174.1	.00038	.42647	F -.00881	92.407	-.00583	.00639	13.843	29.625
Stddev	1.0	.00012	.00329	.00042	.062	.00073	.00137	.173	.370
%RSD	.08375	33.140	.77054	4.7614	.06744	12.557	21.489	1.2476	1.2476

#1	1173.4	.00029	.42415	-.00852	92.363	-.00634	.00542	13.721	29.364
#2	1174.8	.00047	.42879	-.00911	92.451	-.00531	.00736	13.966	29.886

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Fail	Chk Pass				
High Limit	500.00			200.00					
Low Limit	11.000			-.00600					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00132	.39830	-.00489	.00202	.00873	.00255	-.00002	.00194	-.00141
Stddev	.00035	.00043	.00042	.00016	.00123	.00754	.00062	.00010	.00060
%RSD	26.789	.10718	8.4951	7.8000	14.033	296.29	3572.6	5.1513	42.521

#1	-.00157	.39800	-.00460	.00213	.00960	-.00279	-.00046	.00187	-.00183
#2	-.00107	.39860	-.00519	.00191	.00786	.00788	.00042	.00201	-.00098

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4403.1	56265.	6699.8
Stddev	13.8	187.	48.1
%RSD	.31389	.33266	.71865

#1	4393.3	56133.	6733.9
#2	4412.9	56398.	6665.8

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .01633	46.452	k .00279	k .00182	k .00027	k .00017	k .99873	k -.00517	k -.00188	k .00069	k .00070
Stddev	.00099	.188	.00005	.00070	.00003	.00004	.00813	.00128	.00006	.00006	.00022
%RSD	6.0636	.40446	1.8266	38.197	10.061	22.584	.81360	24.861	2.9600	9.3161	31.309

#1	k .01703	46.319	k .00282	k .00133	k .00025	k .00019	k 1.0045	k -.00608	k -.00192	k .00064	k .00055
#2	k .01563	46.585	k .00275	k .00231	k .00029	k .00014	k .99299	k -.00426	k -.00184	k .00073	k .00086

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .00689	kF 44.696	.80245	.00561	k -.02158	k -.00105	k -.00149	260.41	k .00189	k .00522	k .00856
Stddev	.00042	.125	.06571	.00120	.00139	.00001	.00005	.05	.00039	.00028	.00065
%RSD	6.0337	.27980	8.1888	21.360	6.4589	.52723	3.5529	.01824	20.630	5.3595	7.6496

#1	k .00660	k 44.784	.84892	.00476	k -.02257	k -.00105	k -.00153	260.38	k .00161	k .00502	k .00903
#2	k .00719	k 44.607	.75599	.00646	k -.02059	k -.00104	k -.00146	260.45	k .00217	k .00541	k .00810

Check ?	None	Chk Fail	None	None	None	None	None	Chk Pass	None	None	None
Value		50.000									
Range		-10.490%									

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k 4.9777	k -.03427	k -.01152	k -.02110	k -.04515	k -.00045	.00033	k 5.1726	k .01541	k .00068	kW 10.522
Stddev	.0662	.00198	.00291	.01002	.02143	.00030	.00015	.0015	.00048	.00154	.049
%RSD	1.3298	5.7858	25.244	47.470	47.470	65.144	45.864	.02915	3.1041	225.43	.46571

#1	k 5.0245	k -.03567	k -.01358	k -.02818	k -.06030	k -.00066	.00044	k 5.1715	k .01507	k -.00041	k 10.557
#2	k 4.9309	k -.03286	k -.00946	k -.01402	k -.02999	k -.00024	.00023	k 5.1736	k .01574	k .00177	k 10.488

Check ?	Chk Pass	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value											10.000
Range											5.00000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	k -.00188	k .00052	k .31461
Stddev	.00044	.00024	.00173
%RSD	23.424	47.174	.55019

#1	k -.00219	k .00069	k .31584
#2	k -.00157	k .00034	k .31339

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4754.9	61660.	6661.4
Stddev	29.7	204.	34.5
%RSD	.62415	.33021	.51793

#1	4734.0	61516.	6685.7
#2	4775.9	61804.	6637.0

Sample Name: CCV-3333645 Acquired: 6/16/2015 22:55:44 Type: QC

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50571	F .59729	1.0301	.51560	.51504	.47243	.00085	4.8139	.51122	.51336	.50868	.50657
Stddev	.00256	.00013	.0014	.00001	.00046	.00030	.00069	.0019	.00019	.00072	.00162	.00028
%RSD	.50530	.02117	.13816	.00195	.08858	.06343	81.727	.03859	.03710	.14084	.31795	.05576

#1	.50390	.59738	1.0291	.51560	.51472	.47222	.00133	4.8153	.51109	.51387	.50983	.50637
#2	.50752	.59720	1.0312	.51559	.51536	.47264	.00036	4.8126	.51136	.51285	.50754	.50677

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass				
Value		.50000										
Range		10.490%										

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 2.2246	54.244	1.0498	20.450	.50949	.51698	F 6.3630	.52696	1.0753	1.0609	.05204	1.0373
Stddev	.0040	.022	.0001	.009	.00068	.00159	.0152	.00098	.0002	.0077	.00126	.0073
%RSD	.17944	.04097	.00567	.04386	.13279	.30847	.23830	.18690	.01884	.72905	2.4118	.70669

#1	2.2274	54.229	1.0498	20.444	.50997	.51810	6.3738	.52766	1.0755	1.0664	.05116	1.0425
#2	2.2218	54.260	1.0499	20.456	.50901	.51585	6.3523	.52627	1.0752	1.0554	.05293	1.0321

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass				
Value	2.5000						5.0000					
Range	-10.490%						10.490%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0417	4.5840	9.8097	1.0337	.50566	-.00311	.50694	1.0553	-.01823	.50574	.50421	.48108
Stddev	.0045	.0078	.0166	.0098	.00066	.00016	.00028	.0030	.01111	.00067	.00052	.00098
%RSD	.42836	.16923	.16923	.94350	.13059	5.1325	.05467	.28848	60.931	.13210	.10311	.20350

#1	1.0448	4.5785	9.7979	1.0406	.50520	-.00322	.50674	1.0575	-.02608	.50526	.50384	.48039
#2	1.0385	4.5895	9.8214	1.0268	.50613	-.00299	.50713	1.0532	-.01037	.50621	.50458	.48178

Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass				
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4889.4	63564.	6763.2
Stddev	12.6	145.	29.1
%RSD	.25814	.22832	.43065

#1	4880.5	63666.	6742.6
#2	4898.3	63461.	6783.8

Sample Name: CCB Acquired: 6/16/2015 22:58:09 Type: QC
 Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00082	-.00009	.00483	-.00029	-.00047	.00006	.00468	-.00390	-.00036	.00007	.00000	-.00002
Stddev	.00076	.00009	.00143	.00016	.00009	.00001	.00053	.00119	.00001	.00024	.00003	.00008
%RSD	92.042	102.23	29.618	55.601	20.094	19.869	11.258	30.519	2.7445	344.09	1314.6	455.25

#1	.00029	-.00002	.00585	-.00041	-.00053	.00007	.00506	-.00306	-.00035	-.00010	.00003	-.00007
#2	.00136	-.00015	.00382	-.00018	-.00040	.00006	.00431	-.00474	-.00036	.00024	-.00002	.00004

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00317	.42814	.00361	.00286	.00003	-.00025	F .95440	.00046	.00047	-.00049	.03595	-.00245
Stddev	.00036	.03345	.00224	.00218	.00008	.00015	.00864	.00030	.00140	.00102	.00252	.00133
%RSD	11.321	7.8136	61.994	75.988	229.99	58.684	.90496	65.493	300.95	208.37	7.0128	54.019

#1	-.00291	.45180	.00519	.00440	.00009	-.00035	.96051	.00025	.00145	.00023	.03417	-.00152
#2	-.00342	.40449	.00203	.00133	-.00002	-.00014	.94829	.00067	-.00052	-.00121	.03773	-.00339

Check ?	Chk Pass	Chk Fail	Chk Pass									
High Limit							.50000					
Low Limit							-.50000					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00035	-.00334	-.00715	.00006	-.00011	-.00080	-.00012	-.00003	-.01297	.00054	.00057	-.00050
Stddev	.00266	.00425	.00911	.00021	.00007	.00023	.00035	.00120	.01206	.00004	.00031	.00288
%RSD	751.31	127.31	127.31	322.89	61.303	28.116	288.27	3907.5	92.987	6.5814	54.298	576.63

#1	-.00223	-.00635	-.01359	.00021	-.00016	-.00064	-.00037	-.00088	-.00444	.00057	.00080	.00154
#2	.00153	-.00033	-.00071	-.00008	-.00006	-.00096	.00013	.00082	-.02150	.00052	.00035	-.00253

Check ?	Chk Pass											
High Limit												
Low Limit												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4968.1	64617.	6744.5
Stddev	9.9	202.	18.0
%RSD	.19985	.31316	.26656

#1	4961.1	64760.	6757.2
#2	4975.1	64474.	6731.8

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01047	.12756	F .01995	.10395	.01026	.00106	.11736	.20487	.00523	.01092	.01109	.01568
Stddev	.00046	.00030	.00018	.00048	.00025	.00007	.00169	.00147	.00004	.00004	.00027	.00040
%RSD	4.3973	.23332	.89319	.45728	2.4234	6.3018	1.4391	.71753	.85506	.38917	2.4502	2.5355

#1	.01014	.12735	.01982	.10428	.01043	.00101	.11856	.20591	.00526	.01095	.01128	.01540
#2	.01079	.12777	.02008	.10361	.01008	.00111	.11617	.20383	.00520	.01089	.01090	.01597

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass								
Value			.01500									
Range			30.000%									

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09258	3.8520	F .01436	.21746	.01083	.02081	F 2.0284	.04481	3.1752	.00900	.03027	.00929
Stddev	.00001	.0951	.00044	.00663	.00011	.00039	.0267	.00043	.0363	.00037	.00038	.00212
%RSD	.01305	2.4694	3.0610	3.0467	1.0172	1.8886	1.3161	.95329	1.1424	4.1010	1.2632	22.803

#1	.09259	3.7848	.01405	.21277	.01075	.02108	2.0095	.04511	3.2008	.00874	.03054	.00780
#2	.09257	3.9193	.01468	.22214	.01090	.02053	2.0472	.04451	3.1495	.00926	.03000	.01079

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value			.01000				1.0000					
Range			30.000%				30.000%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01654	.47057	1.0070	.10559	.01095	.01536	.01033	.01768	.07728	.01119	.02355	.01421
Stddev	.00033	.01492	.0319	.00033	.00022	.00222	.00012	.00021	.03161	.00001	.00022	.00064
%RSD	1.9661	3.1711	3.1711	.31471	1.9971	14.438	1.1997	1.1681	40.908	.11920	.91495	4.4911

#1	.01677	.46002	.98445	.10535	.01079	.01379	.01042	.01753	.09963	.01119	.02370	.01376
#2	.01631	.48113	1.0296	.10582	.01110	.01693	.01024	.01782	.05492	.01120	.02340	.01466

Check ?	Chk Pass											
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4938.3	64824.	6673.7
Stddev	12.6	343.	.3
%RSD	.25514	.52955	.00432

#1	4929.4	64582.	6673.5
#2	4947.2	65067.	6673.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00060	.00260	.00243	.00048	-0.00006	.00003	.00174	.00235	-0.00023
Stddev	.00041	.00047	.00103	.00035	.00021	.00010	.00100	.00287	.00023
%RSD	69.164	17.986	42.472	72.608	333.07	358.47	57.548	121.91	99.651

#1	.00089	.00293	.00316	.00073	.00009	-0.00004	.00245	.00032	-0.00039
#2	.00031	.00227	.00170	.00023	-0.00021	.00010	.00103	.00438	-0.00007

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00012	-0.00020	-0.00030	-0.00152	.38716	.00405	-0.00091	.00008	-0.00049
Stddev	.00002	.00029	.00018	.00169	.03873	.00020	.00424	.00000	.00002
%RSD	15.069	144.41	58.940	111.13	10.004	4.9267	468.63	5.0090	4.2900

#1	.00013	.00000	-0.00018	-0.00271	.41455	.00419	-0.00391	.00008	-0.00051
#2	.00010	-0.00040	-0.00043	-0.00032	.35977	.00390	.00210	.00008	-0.00048

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .75257	.00022	.00047	.00011	.03216	-0.00112	-0.00056	-0.01072	-0.02295
Stddev	.00247	.00028	.00094	.00014	.00077	.00108	.00157	.00635	.01359
%RSD	.32794	127.40	198.49	128.18	2.4074	96.048	282.44	59.231	59.231

#1	.75432	.00042	.00113	.00001	.03161	-0.00189	-0.00166	-0.01522	-0.03256
#2	.75083	.00002	-0.00019	.00021	.03270	-0.00036	.00055	-0.00623	-0.01334

Check ?	Chk Warn	Chk Pass	None						
High Limit	.50000								
Low Limit	-50000								

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00057	-0.00001	-0.00021	-0.00023	-0.00049	-0.00555	.00056	.00152	-0.00255
Stddev	.00098	.00002	.00010	.00018	.00021	.01110	.00069	.00034	.00171
%RSD	173.44	165.02	46.585	81.889	43.313	200.08	123.94	22.668	67.289

#1	.00013	-0.00002	-0.00028	-0.00036	-0.00034	.00230	.00007	.00176	-0.00134
#2	-0.00126	.00000	-0.00014	-0.00009	-0.00064	-0.01339	.00105	.00128	-0.00376

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4966.6	65423.	6733.3
Stddev	17.3	147.	53.9
%RSD	.34931	.22447	.80114

#1	4954.3	65527.	6695.2
#2	4978.8	65319.	6771.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05493	F 2.3456	1.0672	1.0865	2.1552	.04927	2.1392	49.873	.10579
Stddev	.00070	.0001	.0004	.0015	.0040	.00010	.0036	.056	.00026
%RSD	1.2798	.00221	.03425	.14212	.18760	.21225	.17029	.11268	.24917

#1	.05443	2.3456	1.0670	1.0854	2.1581	.04920	2.1418	49.833	.10598
#2	.05543	2.3456	1.0675	1.0876	2.1523	.04935	2.1366	49.912	.10561

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
High Limit		2.2299							
Low Limit		1.7300							

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52275	F .21335	.26388	.90856	F 57.301	1.1030	52.844	.52584	1.0886
Stddev	.00093	.00000	.00110	.00393	.120	.0006	.209	.00027	.0013
%RSD	.17744	.00183	.41595	.43303	.20873	.05685	.39473	.05223	.12179

#1	.52340	.21335	.26310	.90578	57.216	1.1034	52.697	.52564	1.0876
#2	.52209	.21334	.26465	.91134	57.386	1.1025	52.992	.52603	1.0895

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.05750			57.000				
Low Limit		.04275			44.500				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 56.726	.52875	F 11.214	.51983	2.0710	.52413	2.1502	9.6169	20.580
Stddev	.378	.00069	.005	.00094	.0015	.00010	.0053	.0384	.082
%RSD	.66699	.13041	.04781	.18118	.07495	.01994	.24394	.39977	.39977

#1	56.993	.52923	11.210	.52050	2.0699	.52406	2.1539	9.5897	20.522
#2	56.458	.52826	11.218	.51917	2.0721	.52420	2.1465	9.6441	20.638

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit	56.000		11.100						
Low Limit	45.500		9.1000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0901	1.0553	1.0033	1.0548	2.0858	2.1350	.52647	.51834	.49968
Stddev	.0017	.0008	.0005	.0013	.0076	.0212	.00099	.00023	.00225
%RSD	.08202	.07422	.04539	.12003	.36625	.99214	.18793	.04467	.45044

#1	2.0913	1.0559	1.0029	1.0540	2.0804	2.1500	.52577	.51818	.50128
#2	2.0889	1.0548	1.0036	1.0557	2.0912	2.1200	.52716	.51850	.49809

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4777.7	62228.	6675.3
Stddev	7.4	5.	19.7
%RSD	.15498	.00836	.29578

#1	4772.5	62232.	6661.3
#2	4783.0	62224.	6689.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00067	.00404	.01042	1.4751	.01052	.00000	-.00365	82.656	.00062
Stddev	.00066	.00022	.00302	.0137	.00009	.0001	.00176	.618	.00013
%RSD	97.131	5.5391	28.965	.92602	.86268	2150.0	48.383	.74749	20.132

#1	.00021	.00388	.01255	1.4848	.01058	.00007	-.00240	82.219	.00053
#2	.00114	.00419	.00829	1.4655	.01045	-.00008	-.00489	83.093	.00071

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00127	-.00068	.00081	.32746	22.292	.10296	296.27	.06072	.00412
Stddev	.00002	.00027	.00023	.00919	.196	.00621	.12	.00006	.00018
%RSD	1.5351	40.295	27.912	2.8054	.87751	6.0300	.04089	.09852	4.3599

#1	-.00128	-.00088	.00065	.32097	22.154	.09857	296.19	.06068	.00399
#2	-.00125	-.00049	.00097	.33396	22.430	.10735	296.36	.06077	.00425

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 833.58	.00087	.12872	F -.01072	F 663.99	-.00581	.00483	19.196	41.080
Stddev	3.92	.00034	.00231	.00016	1.77	.00152	.00028	.513	1.098
%RSD	.47016	38.598	1.7910	1.4509	.26608	26.114	5.7495	2.6738	2.6738

#1	830.81	.00063	.13035	-.01061	665.24	-.00689	.00463	18.833	40.303
#2	836.35	.00111	.12709	-.01083	662.74	-.00474	.00502	19.559	41.857

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00			200.00	200.00				
Low Limit	11.000			-.00600	-.20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00091	.54847	-.00576	-.00064	.01098	-.01597	.00161	.00451	-.00162
Stddev	.00082	.00351	.00005	.00024	.00096	.04228	.00021	.00017	.00068
%RSD	89.925	.63960	.84048	37.995	8.7092	264.72	13.103	3.7166	42.226

#1	-.00149	.54599	-.00573	-.00082	.01030	-.04586	.00176	.00440	-.00210
#2	-.00033	.55095	-.00580	-.00047	.01165	.01392	.00146	.00463	-.00114

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4395.0	56983.	6576.9
Stddev	.0	233.	4.3
%RSD	.00049	.40908	.06579

#1	4395.0	57148.	6580.0
#2	4394.9	56818.	6573.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0014	.00042	.00937	.31394	.00197	.00015	.00506	16.691	.00002
Stddev	.00015	.00021	.00254	.00081	.00001	.00000	.00194	.005	.00005
%RSD	108.99	48.982	27.061	.25738	.56664	.40561	38.228	.03192	251.47

#1	-0.0003	.00057	.00758	.31451	.00198	.00015	.00369	16.695	.00006
#2	-0.0025	.00028	.01116	.31336	.00196	.00015	.00643	16.687	-0.0002

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0036	-0.0032	.00055	.06674	4.7653	.02403	60.144	.01243	-0.0056
Stddev	.00022	.00009	.00017	.00119	.0828	.00209	.188	.00008	.00009
%RSD	62.354	27.151	30.681	1.7874	1.7383	8.6907	.31255	.66072	16.237

#1	-0.0051	-0.0026	.00067	.06758	4.7067	.02255	60.011	.01237	-0.0050
#2	-0.0020	-0.0038	.00043	.06589	4.8239	.02551	60.277	.01248	-0.0063

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	166.79	.00003	.02346	W -.00405	137.86	-.00624	-.00016	3.8289	8.1938
Stddev	.01	.00002	.00257	.00077	.45	.00131	.00022	.0333	.0712
%RSD	.00689	51.561	10.960	19.097	.32365	20.960	138.78	.86905	.86905

#1	166.79	.00004	.02528	-.00459	138.17	-.00532	-.00031	3.8053	8.1434
#2	166.80	.00002	.02165	-.00350	137.54	-.00717	.00000	3.8524	8.2441

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.00300					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0058	.10991	-.00197	-.00018	.00321	-.02395	-.00020	.00162	-.00101
Stddev	.00073	.00024	.00073	.00010	.00204	.08364	.00013	.00004	.00138
%RSD	126.58	.21459	37.201	55.675	63.441	349.23	65.840	2.4508	137.30

#1	-0.0006	.11008	-.00249	-.00011	.00177	.03519	-.00029	.00165	-.00198
#2	-0.0109	.10974	-.00145	-.00025	.00466	-.08309	-.00011	.00160	-.00003

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4775.2	61818.	6696.9
Stddev	14.4	395.	44.3
%RSD	.30100	.63973	.66083

#1	4785.3	62098.	6665.6
#2	4765.0	61539.	6728.2

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05507	2.1628	W 2.6197	1.0948	2.3802	2.1345	.04778	F 2.0350	124.86
Stddev	.00108	.0050	.0512	.0020	.0006	.0104	.00012	.0024	.30
%RSD	1.9540	.22965	1.9534	.18092	.02710	.48732	.24874	.12047	.24417

#1	.05431	2.1663	2.5835	1.0962	2.3807	2.1272	.04770	2.0367	124.65
#2	.05583	2.1593	2.6559	1.0934	2.3798	2.1419	.04787	2.0332	125.08

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit			500.00					.10000	
Low Limit			3.2000					-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10584	.50094	W .20653	.25623	1.1701	79.975	1.2149	325.88	.57166
Stddev	.00008	.00067	.00012	.00112	.0001	.440	.0070	.67	.00157
%RSD	.07231	.13474	.05708	.43796	.00623	.55021	.57867	.20517	.27420

#1	.10589	.50142	.20662	.25544	1.1701	79.664	1.2100	326.35	.57055
#2	.10578	.50046	.20645	.25702	1.1700	80.286	1.2199	325.40	.57277

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			.10000						
Low Limit			-.01000						

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0675	W 833.87	.49909	W 11.720	.47116	F 636.27	.51347	2.2063	26.716
Stddev	.0025	2.30	.00055	.015	.00186	.42	.00302	.0004	.086
%RSD	.23058	.27601	.10925	.12942	.39569	.06593	.58727	.01897	.32287

#1	1.0692	832.24	.49871	11.731	.47248	636.57	.51561	2.2066	26.655
#2	1.0657	835.50	.49948	11.709	.46984	635.97	.51134	2.2060	26.777

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		500.00		2.0000		200.00			
Low Limit		11.000		-1.0000		-.20000			

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	57.172	1.9825	1.5559	.99719	1.0429	1.7735	2.0660	.52608	.51009
Stddev	.185	.0043	.0036	.00777	.0019	.0016	.0124	.00372	.00026
%RSD	.32287	.21954	.23039	.77921	.18248	.09269	.59780	.70706	.05001

#1	57.042	1.9856	1.5533	.99170	1.0415	1.7747	2.0573	.52345	.51027
#2	57.303	1.9794	1.5584	1.0027	1.0442	1.7724	2.0748	.52871	.50991

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.49019
Stddev	.00778
%RSD	1.5876

#1	.48468
#2	.49569

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-70408-c-1-b ms Acquired: 6/16/2015 23:13:16 Type: Unk
Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
User: S. Scott Prep Date: Custom ID2: Custom ID3:
Comment: 280940 6010B

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	4359.7	56646.	6523.7
Stddev	3.7	23.	11.9
%RSD	.08509	.04047	.18280
#1	4357.1	56662.	6515.3
#2	4362.3	56630.	6532.1

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05683	2.1828	W 2.6799	1.1150	2.4960	2.1705	.04838	F 2.0614	130.72
Stddev	.00027	.0037	.0197	.0183	.0003	.0049	.00006	.0136	.04
%RSD	.48300	.16785	.73578	1.6431	.01160	.22428	.12812	.66016	.02734

#1	.05663	2.1854	2.6660	1.1280	2.4958	2.1671	.04842	2.0710	130.70
#2	.05702	2.1802	2.6938	1.1021	2.4962	2.1740	.04833	2.0517	130.75

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit			500.00					.10000	
Low Limit			3.2000					-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10643	.50171	W .20847	.25999	1.2009	82.671	1.2421	347.60	.57995
Stddev	.00038	.00582	.00165	.00078	.0011	.220	.0096	1.73	.00113
%RSD	.35531	1.1597	.79211	.29897	.09199	.26627	.77175	.49814	.19444

#1	.10670	.50582	.20964	.25944	1.2017	82.515	1.2353	348.82	.58075
#2	.10616	.49759	.20731	.26054	1.2001	82.827	1.2489	346.37	.57915

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			.10000						
Low Limit			-.01000						

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0860	W 893.23	.49923	W 11.906	.47175	F 684.88	.52256	2.2375	28.151
Stddev	.0021	3.25	.00468	.038	.00692	1.07	.00055	.0163	.085
%RSD	.18981	.36398	.93699	.32274	1.4664	.15623	.10441	.72622	.30225

#1	1.0874	890.93	.50254	11.933	.47664	685.64	.52295	2.2490	28.091
#2	1.0845	895.53	.49592	11.879	.46685	684.13	.52218	2.2261	28.211

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		500.00		2.0000		200.00			
Low Limit		11.000		-1.0000		-.20000			

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	60.244	1.9950	1.6101	1.0070	1.0568	1.7835	2.1239	.53114	.51290
Stddev	.182	.0139	.0023	.0003	.0023	.0169	.0208	.00038	.00337
%RSD	.30225	.69708	.14356	.03370	.21846	.94636	.97971	.07171	.65721

#1	60.115	2.0048	1.6085	1.0073	1.0584	1.7955	2.1386	.53087	.51528
#2	60.373	1.9851	1.6118	1.0068	1.0551	1.7716	2.1091	.53141	.51051

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.49567
Stddev	.00250
%RSD	.50409

#1	.49390
#2	.49743

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-70408-c-1-c msd Acquired: 6/16/2015 23:15:48 Type: Unk
Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
User: S. Scott Prep Date: Custom ID2: Custom ID3:
Comment: 280940 6010B

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	4353.4	56934.	6593.8
Stddev	5.4	186.	61.6
%RSD	.12458	.32604	.93431
#1	4349.6	56803.	6637.4
#2	4357.2	57065.	6550.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00078	.00763	.01070	1.3363	.01015	.00003	-.00331	87.721	.00044
Stddev	.00076	.00015	.00162	.0063	.00015	.00012	.00043	.244	.00015
%RSD	96.728	1.9507	15.182	.46935	1.4883	436.01	12.936	.27815	33.318

#1	.00025	.00774	.01184	1.3408	.01004	-.00006	-.00362	87.894	.00054
#2	.00132	.00753	.00955	1.3319	.01025	.00011	-.00301	87.549	.00033

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00124	-.00029	.00102	.55747	17.856	.09677	222.07	.15727	.00671
Stddev	.00039	.00001	.00051	.00304	.038	.00039	.35	.00003	.00063
%RSD	31.366	3.5689	50.008	.54579	.21209	.40179	.15908	.01929	9.3258

#1	-.00096	-.00028	.00138	.55532	17.830	.09705	221.82	.15729	.00626
#2	-.00151	-.00029	.00066	.55962	17.883	.09650	222.32	.15724	.00715

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 534.85	.00109	.06759	F -.00974	F 485.77	-.00601	.00981	14.557	31.151
Stddev	1.06	.00017	.00308	.00080	1.96	.00077	.00020	.058	.124
%RSD	.19831	15.871	4.5510	8.2283	.40278	12.827	2.0416	.39936	.39936

#1	535.60	.00097	.06977	-.01030	487.15	-.00547	.00967	14.516	31.063
#2	534.10	.00122	.06542	-.00917	484.38	-.00656	.00996	14.598	31.239

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00			200.00	200.00				
Low Limit	11.000			-.00600	-.20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00061	.51960	-.00239	-.00053	.01077	-.02294	.00031	.00294	.00419
Stddev	.00011	.00070	.00009	.00010	.00219	.02546	.00040	.00045	.00049
%RSD	18.096	.13382	3.9058	18.713	20.324	111.00	126.36	15.236	11.586

#1	-.00053	.52009	-.00233	-.00046	.00922	-.00493	.00003	.00325	.00385
#2	-.00069	.51911	-.00246	-.00060	.01231	-.04094	.00059	.00262	.00453

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4492.0	58311.	6605.6
Stddev	13.0	208.	67.2
%RSD	.28925	.35610	1.0176

#1	4501.2	58164.	6558.1
#2	4482.8	58458.	6653.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00026	.00275	.00131	.00326	-.00020	-.00001	.00375	.07301	.00007
Stddev	.00012	.00008	.00124	.00023	.00003	.00011	.00266	.00628	.00008
%RSD	47.607	2.9658	94.450	7.0485	14.196	1579.6	70.913	8.6054	112.39

#1	.00017	.00269	.00218	.00342	-.00022	.00007	.00563	.07746	.00013
#2	.00035	.00280	.00043	.00310	-.00018	-.00009	.00187	.06857	.00001

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00002	-.00012	.00047	.00580	.48102	.00410	.03207	.00010	-.00024
Stddev	.00002	.00016	.00042	.00126	.12238	.00181	.00149	.00009	.00018
%RSD	77.889	133.64	89.245	21.756	25.441	44.072	4.6552	92.884	74.407

#1	.00001	-.00001	.00077	.00491	.56756	.00537	.03101	.00003	-.00037
#2	.00003	-.00023	.00017	.00669	.39449	.00282	.03313	.00017	-.00012

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0202	.00056	.00140	-.00037	.12043	-.00297	-.00057	.16367	.35025
Stddev	.0692	.00014	.00055	.00011	.00925	.00147	.00354	.01542	.03299
%RSD	6.7796	25.618	39.712	30.081	7.6790	49.472	625.53	9.4203	9.4203

#1	1.0691	.00066	.00179	-.00045	.12697	-.00401	.00194	.15277	.32692
#2	.97127	.00046	.00100	-.00029	.11389	-.00193	-.00307	.17457	.37358

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00039	.00104	-.00195	-.00010	.00012	.02320	.00088	.00133	.00043
Stddev	.00035	.00004	.00164	.00027	.00056	.00897	.00043	.00022	.00182
%RSD	89.544	4.3109	84.290	275.59	473.79	38.655	48.293	16.601	427.05

#1	-.00063	.00101	-.00079	-.00029	-.00028	.01686	.00058	.00148	-.00086
#2	-.00014	.00107	-.00311	.00009	.00051	.02955	.00118	.00117	.00172

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4985.0	65184.	6760.1
Stddev	13.9	299.	20.7
%RSD	.27906	.45846	.30598

#1	4975.1	64973.	6745.5
#2	4994.8	65395.	6774.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0026	.00046	.01000	1.3820	.00901	-0.0002	-0.00085	82.547	.00054
Stddev	.00002	.00024	.00123	.0050	.00024	.00008	.00181	.121	.00003
%RSD	9.2928	53.107	12.326	.35883	2.6244	349.16	213.95	.14600	5.0166

#1	-0.0028	.00063	.00913	1.3785	.00918	-0.0007	-0.00213	82.632	.00052
#2	-0.0025	.00029	.01088	1.3855	.00885	.00003	.00043	82.462	.00056

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00152	-0.00060	.00041	.03675	21.355	.10644	243.86	.04790	.00434
Stddev	.00013	.00028	.00087	.00167	.134	.00169	.41	.00025	.00002
%RSD	8.7806	47.118	209.20	4.5472	.62918	1.5879	.16773	.51314	.48870

#1	-0.00161	-0.00080	.00103	.03793	21.260	.10524	244.15	.04807	.00435
#2	-0.0142	-0.00040	-0.00020	.03557	21.450	.10763	243.57	.04772	.00432

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 802.02	-0.00012	.05417	F -.00890	F 657.87	-0.00700	.00715	14.605	31.254
Stddev	1.02	.00016	.00062	.00043	.79	.00011	.00160	.052	.112
%RSD	.12733	137.82	1.1373	4.8371	.11975	1.5514	22.335	.35797	.35797

#1	802.74	-0.00023	.05373	-.00859	657.31	-0.00708	.00828	14.568	31.175
#2	801.30	.00000	.05460	-.00920	658.42	-0.00693	.00602	14.642	31.333

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00			200.00	200.00				
Low Limit	11.000			-.00600	-.20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00141	.50283	-.00307	-.00064	.00894	-0.00756	.00078	.00537	.00148
Stddev	.00020	.00108	.00198	.00022	.00108	.02278	.00015	.00015	.00038
%RSD	14.324	.21476	64.385	33.612	12.103	301.24	19.806	2.8336	25.689

#1	-0.00155	.50360	-.00447	-.00080	.00817	.00854	.00089	.00548	.00121
#2	-0.00126	.50207	-.00167	-.00049	.00970	-.02367	.00067	.00527	.00175

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4406.5	57313.	6566.4
Stddev	1.6	106.	9.0
%RSD	.03542	.18475	.13675

#1	4407.6	57388.	6560.1
#2	4405.4	57238.	6572.8

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .01711	46.172	k .00217	k .00426	k .00040	k .00020	k .99740	k -.00082	k -.00182	k .00062	k .00055
Stddev	.00026	.026	.00253	.00024	.00031	.00004	.00001	.00083	.00030	.00007	.00004
%RSD	1.5086	.05725	116.48	5.7420	78.608	18.370	.00143	101.78	16.675	10.710	7.2168

#1	k .01693	46.191	k .00038	k .00409	k .00018	k .00023	k .99741	k -.00140	k -.00161	k .00067	k .00058
#2	k .01730	46.154	k .00395	k .00444	k .00062	k .00018	k .99739	k -.00023	k -.00204	k .00057	k .00052

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .00655	kF 44.330	.57020	.00663	k -.01670	k -.00106	k -.00169	263.89	k .00269	k .00657	k .00837
Stddev	.00009	.130	.00959	.00061	.00170	.00003	.00004	.04	.00075	.00120	.00051
%RSD	1.4308	.29276	1.6817	9.1572	10.161	2.8431	2.5349	.01353	27.834	18.278	6.1408

#1	k .00662	k 44.422	.57698	.00706	k -.01550	k -.00108	k -.00173	263.86	k .00322	k .00572	k .00873
#2	k .00649	k 44.238	.56342	.00620	k -.01790	k -.00104	k -.00166	263.92	k .00216	k .00742	k .00801

Check ?	None	Chk Fail	None	None	None	None	None	Chk Pass	None	None	None
Value		50.000									
Range		-10.490%									

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k 5.0746	k -.03416	k -.01508	k -.00953	k -.02040	k -.00037	.00031	k 5.1770	k .01508	k .00314	kW 10.589
Stddev	.0837	.00035	.00057	.00925	.01980	.00005	.00006	.0072	.00027	.00072	.019
%RSD	1.6493	1.0140	3.8093	97.054	97.054	14.112	19.207	.13871	1.7957	22.974	.18206

#1	k 5.1337	k -.03392	k -.01548	k -.00299	k -.00640	k -.00041	.00026	k 5.1820	k .01489	k .00263	k 10.602
#2	k 5.0154	k -.03441	k -.01467	k -.01607	k -.03439	k -.00034	.00035	k 5.1719	k .01528	k .00365	k 10.575

Check ?	Chk Pass	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value											10.000
Range											5.00000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	k -.00154	k .00098	k .30954
Stddev	.00089	.00046	.00059
%RSD	57.952	47.073	.18930

#1	k -.00217	k .00130	k .30996
#2	k -.00091	k .00065	k .30913

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4756.5	62060.	6542.3
Stddev	16.4	297.	29.0
%RSD	.34537	.47796	.44356

#1	4744.9	61850.	6521.7
#2	4768.1	62269.	6562.8

Sample Name: CCV-3333645 Acquired: 6/16/2015 23:29:14 Type: QC

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49766	F .60565	1.0407	.51709	.51898	.46895	.00009	4.7873	.51146	.51536	.51547	.50117
Stddev	.00014	.00581	.0059	.00066	.00039	.00014	.00108	.0009	.00212	.00196	.00241	.00196
%RSD	.02722	.95921	.56322	.12793	.07607	.03003	1175.4	.01965	.41479	.38003	.46662	.39052

#1	.49775	.60976	1.0448	.51756	.51926	.46885	.00086	4.7879	.51296	.51675	.51718	.49978
#2	.49756	.60155	1.0365	.51662	.51870	.46905	-.00067	4.7866	.50996	.51398	.51377	.50255

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass				
Value		.50000										
Range		10.490%										

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 2.1711	54.656	1.0574	20.247	.50661	.52167	F 5.9611	.52647	1.0711	1.0546	.09492	1.0207
Stddev	.0181	.172	.0008	.075	.00087	.00237	.0201	.00394	.0065	.0081	.00275	.0041
%RSD	.83456	.31422	.07303	.36895	.17215	.45433	.33655	.74914	.60988	.76621	2.9000	.40381

#1	2.1583	54.778	1.0580	20.195	.50599	.52335	5.9753	.52926	1.0757	1.0603	.09687	1.0237
#2	2.1839	54.535	1.0569	20.300	.50722	.52000	5.9469	.52368	1.0665	1.0489	.09297	1.0178

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass				
Value	2.5000						5.0000					
Range	-10.490%						10.490%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0299	4.5397	9.7149	1.0311	.50704	-.00341	.50365	1.0543	-.02114	.50336	.50681	.47656
Stddev	.0080	.0783	.1676	.0113	.00133	.00090	.00024	.0107	.00301	.00618	.00034	.00316
%RSD	.78169	1.7255	1.7255	1.0998	.26149	26.271	.04741	1.0121	14.247	1.2274	.06616	.66345

#1	1.0356	4.4843	9.5964	1.0392	.50797	-.00278	.50348	1.0619	-.02327	.49899	.50705	.47433
#2	1.0242	4.5951	9.8335	1.0231	.50610	-.00404	.50382	1.0468	-.01901	.50773	.50657	.47880

Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass				
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4849.9	63832.	6678.7
Stddev	20.3	307.	18.7
%RSD	.41783	.48086	.28041

#1	4835.6	64049.	6665.4
#2	4864.3	63615.	6691.9

Sample Name: CCB Acquired: 6/16/2015 23:31:40 Type: QC
 Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00059	.00022	.00232	.00157	-.00027	.00004	.00519	-.00850	-.00023	-.00004	.00003	-.00022
Stddev	.00049	.00026	.00638	.00028	.00047	.00003	.00116	.00456	.00000	.00008	.00003	.00010
%RSD	84.194	115.39	275.33	18.009	172.24	76.580	22.408	53.689	2.1187	221.40	92.168	46.107

#1	.00094	.00004	-.00219	.00137	-.00060	.00006	.00601	-.01173	-.00024	-.00010	.00001	-.00015
#2	.00024	.00041	.00682	.00177	.00006	.00002	.00437	-.00527	-.00023	.00002	.00005	-.00030

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00321	.29725	.00411	-.00405	.00001	-.00029	F .58647	.00030	-.00038	-.00091	.05936	-.00189
Stddev	.00005	.03853	.00227	.00100	.00001	.00032	.00727	.00007	.00073	.00038	.00142	.00007
%RSD	1.4517	12.961	55.384	24.696	111.69	107.74	1.2400	24.786	193.46	41.467	2.3928	3.7883

#1	-.00325	.32450	.00571	-.00476	.00002	-.00052	.59161	.00025	-.00089	-.00117	.06036	-.00194
#2	-.00318	.27001	.00250	-.00334	.00000	-.00007	.58133	.00035	.00014	-.00064	.05835	-.00184

Check ?	Chk Pass	Chk Fail	Chk Pass									
High Limit							.50000					
Low Limit							-.50000					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00065	-.00915	-.01957	.00025	-.00006	-.00070	-.00036	.00134	.00035	.00057	.00047	-.00107
Stddev	.00105	.01092	.02337	.00029	.00016	.00016	.00031	.00020	.02230	.00014	.00053	.00040
%RSD	161.58	119.40	119.40	115.79	259.85	23.285	86.582	14.801	6446.9	24.270	111.50	37.306

#1	.00139	-.01687	-.03610	.00005	.00005	-.00082	-.00058	.00148	.01611	.00047	.00085	-.00135
#2	-.00009	-.00142	-.00305	.00046	-.00017	-.00059	-.00014	.00120	-.01542	.00067	.00010	-.00079

Check ?	Chk Pass											
High Limit												
Low Limit												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5002.7	65684.	6680.4
Stddev	1.0	169.	11.1
%RSD	.01903	.25767	.16582

#1	5003.4	65564.	6672.5
#2	5002.0	65804.	6688.2

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01097	.12944	F .02156	.10595	.01064	.00105	.11718	.20463	.00535	.01125	.01101	.01574
Stddev	.00004	.00098	.00124	.00074	.00009	.00006	.00106	.00664	.00005	.00013	.00026	.00006
%RSD	.35700	.75719	5.7493	.69377	.84623	6.1045	.90048	3.2428	.96996	1.1791	2.3238	.39136

#1	.01100	.13013	.02243	.10543	.01071	.00110	.11643	.19994	.00539	.01116	.01083	.01570
#2	.01094	.12874	.02068	.10647	.01058	.00100	.11793	.20932	.00532	.01135	.01120	.01578

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass								
Value			.01500									
Range			30.000%									

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08974	3.8011	F .01783	.22581	.01089	.02133	F 1.7111	.04514	3.2063	.01160	.05593	.00858
Stddev	.00213	.0632	.00357	.00271	.00006	.00029	.0217	.00098	.0508	.00241	.00158	.00171
%RSD	2.3767	1.6631	20.024	1.2011	.58731	1.3691	1.2689	2.1684	1.5840	20.786	2.8311	19.948

#1	.08823	3.7564	.02036	.22773	.01094	.02112	1.6958	.04445	3.1703	.00990	.05705	.00737
#2	.09125	3.8458	.01531	.22390	.01085	.02153	1.7265	.04584	3.2422	.01331	.05481	.00979

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value			.01000				1.0000					
Range			30.000%				30.000%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01685	.46595	.99714	.10857	.01105	.01497	.01036	.01616	.05723	.01074	.02367	.01434
Stddev	.00085	.02958	.06329	.00060	.00018	.00016	.00005	.00202	.00872	.00038	.00014	.00004
%RSD	5.0258	6.3474	6.3474	.55026	1.6518	1.0812	.43917	12.505	15.240	3.5180	.59464	.29213

#1	.01744	.44504	.95238	.10815	.01092	.01486	.01032	.01473	.06339	.01047	.02377	.01437
#2	.01625	.48686	1.0419	.10899	.01118	.01509	.01039	.01759	.05106	.01100	.02357	.01431

Check ?	Chk Pass											
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4951.0	65550.	6681.2
Stddev	3.9	23.	54.4
%RSD	.07977	.03443	.81367

#1	4953.8	65566.	6719.6
#2	4948.2	65534.	6642.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00072	.00214	.00149	.00252	-0.00004	.00005	.00386	.00188	-0.00015
Stddev	.00023	.00010	.00371	.00022	.00005	.00001	.00127	.00393	.00025
%RSD	31.852	4.6924	249.71	8.8927	150.01	29.287	32.904	209.06	165.68

#1	.00088	.00221	-.00114	.00268	.00000	.00004	.00476	.00465	.00003
#2	.00055	.00207	.00411	.00236	-.00008	.00005	.00296	-.00090	-.00033

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00005	-.00012	.00014	-.00242	.34379	.00243	-.00401	.00006	-.00074
Stddev	.00009	.00020	.00056	.00167	.02090	.00193	.00235	.00007	.00002
%RSD	187.52	167.24	397.22	69.067	6.0781	79.616	58.564	114.51	2.6345

#1	-.00001	.00002	.00053	-.00360	.32901	.00380	-.00567	.00010	-.00075
#2	.00011	-.00026	-.00025	-.00124	.35856	.00106	-.00235	.00001	-.00073

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49319	.00014	.00196	-.00074	W .05017	-.00380	-.00118	.00881	.01886
Stddev	.01576	.00012	.00019	.00101	.00094	.00083	.00142	.00351	.00752
%RSD	3.1947	90.022	9.4768	135.63	1.8832	21.762	120.58	39.878	39.878

#1	.48205	.00023	.00209	-.00145	.04951	-.00438	-.00017	.01130	.02418
#2	.50433	.00005	.00183	-.00003	.05084	-.00322	-.00219	.00633	.01354

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	None
High Limit					.05000				
Low Limit					-.05000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00123	-.00006	-.00107	-.00040	.00026	-.00222	.00028	.00132	-.00207
Stddev	.00030	.00016	.00113	.00014	.00083	.02194	.00006	.00019	.00072
%RSD	24.776	259.89	105.65	34.741	315.39	989.82	20.587	14.356	34.603

#1	-.00144	-.00018	-.00027	-.00050	.00085	-.01773	.00024	.00146	-.00257
#2	-.00101	.00005	-.00188	-.00030	-.00032	.01330	.00032	.00119	-.00156

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4972.8	66195.	6739.8
Stddev	10.2	153.	79.5
%RSD	.20413	.23067	1.1794

#1	4979.9	66303.	6683.6
#2	4965.6	66087.	6796.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05156	F 2.2739	1.0279	1.0439	2.0761	.04705	2.0649	47.579	.10193
Stddev	.00065	.0066	.0027	.0012	.0028	.00006	.0014	.078	.00001
%RSD	1.2608	.29167	.25741	.11815	.13374	.13418	.06954	.16441	.00849

#1	.05110	2.2786	1.0260	1.0430	2.0741	.04701	2.0639	47.524	.10192
#2	.05202	2.2692	1.0298	1.0447	2.0780	.04710	2.0659	47.634	.10194

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
High Limit		2.2299							
Low Limit		1.7300							

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50569	F .20594	.25158	F .86214	55.157	1.0656	50.644	.50349	1.0456
Stddev	.00539	.00035	.00040	.00279	.115	.0008	.113	.00117	.0006
%RSD	1.0654	.16958	.15841	.32338	.20875	.07622	.22245	.23299	.05325

#1	.50949	.20619	.25130	.86411	55.076	1.0650	50.724	.50432	1.0460
#2	.50188	.20570	.25186	.86017	55.239	1.0662	50.564	.50266	1.0452

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Pass				
High Limit		.05750		1.1500					
Low Limit		.04275		.89000					

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	54.657	.50920	10.820	.49884	2.0208	.50073	2.0710	9.0949	19.463
Stddev	.310	.00122	.006	.00228	.0044	.00116	.0071	.0497	.106
%RSD	.56739	.23985	.05161	.45735	.21994	.23129	.34287	.54619	.54619

#1	54.438	.50834	10.824	.50045	2.0240	.50155	2.0760	9.1300	19.538
#2	54.877	.51006	10.816	.49723	2.0177	.49991	2.0660	9.0598	19.388

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0211	1.0145	.96284	1.0064	2.0242	2.0661	.50259	.49753	.47480
Stddev	.0034	.0031	.00331	.0030	.0008	.0136	.00049	.00047	.00236
%RSD	.16745	.30714	.34352	.29526	.03929	.65965	.09752	.09546	.49621

#1	2.0235	1.0123	.96518	1.0085	2.0248	2.0565	.50294	.49786	.47313
#2	2.0187	1.0167	.96050	1.0043	2.0237	2.0758	.50225	.49719	.47647

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4741.6	62293.	6644.8
Stddev	7.1	124.	9.3
%RSD	.15067	.19877	.14049

#1	4746.7	62205.	6651.4
#2	4736.5	62381.	6638.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00025	.00275	.01620	.18351	.75814	-.00001	-.00175	77.987	.00005
Stddev	.00064	.00043	.00015	.00101	.00193	.00007	.00242	.144	.00005
%RSD	249.37	15.614	.93967	.55197	.25511	743.66	138.13	.18448	94.023

#1	-.00019	.00245	.01609	.18279	.75678	.00004	-.00347	77.886	.00009
#2	.00070	.00306	.01631	.18422	.75951	-.00006	-.00004	78.089	.00002

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00248	.00126	.00102	.61428	1.8954	.01920	59.230	.02986	-.00362
Stddev	.00013	.00008	.00059	.00782	.1148	.00125	.053	.00001	.00025
%RSD	5.1437	6.7679	57.924	1.2726	6.0593	6.4915	.08994	.02983	6.7627

#1	.00239	.00120	.00060	.60875	1.8141	.01832	59.192	.02985	-.00380
#2	.00257	.00132	.00143	.61981	1.9766	.02008	59.268	.02986	-.00345

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	59.577	.00415	.01810	F -.01063	3.1243	-.00569	.00977	8.7519	18.729
Stddev	1.295	.00047	.00163	.00071	.0115	.00176	.00108	.1255	.268
%RSD	2.1731	11.286	8.9911	6.7170	.36687	30.968	11.051	1.4335	1.4335

#1	58.662	.00382	.01925	-.01113	3.1162	-.00444	.00901	8.6632	18.539
#2	60.493	.00448	.01695	-.01012	3.1324	-.00694	.01054	8.8406	18.919

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass				
High Limit				200.00					
Low Limit				-.00600					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00043	.69638	-.00087	-.00032	.00961	-.01126	.00142	.00102	-.00113
Stddev	.00014	.00165	.00104	.00018	.00195	.00674	.00015	.00013	.00210
%RSD	31.897	.23685	119.49	56.697	20.298	59.907	10.300	13.001	186.14

#1	.00034	.69521	-.00160	-.00019	.00823	-.00649	.00152	.00111	-.00261
#2	.00053	.69754	-.00013	-.00045	.01099	-.01603	.00131	.00092	.00036

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4765.8	62458.	6591.2
Stddev	15.3	624.	18.5
%RSD	.32191	.99856	.28105

#1	4755.0	62899.	6604.3
#2	4776.7	62017.	6578.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00078	.01095	.03410	.24073	3.3580	.00013	-.00020	48.159	.00012
Stddev	.00022	.00010	.00230	.00051	.0006	.00000	.00061	.141	.00009
%RSD	28.404	.92445	6.7479	.21151	.01702	3.1337	299.31	.29316	69.584

#1	.00062	.01103	.03247	.24037	3.3584	.00014	.00023	48.060	.00018
#2	.00093	.01088	.03572	.24109	3.3576	.00013	-.00063	48.259	.00006

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00665	.08547	.00068	24.657	1.4169	.02141	66.264	.40702	-.00315
Stddev	.00040	.00012	.00022	.075	.0064	.00014	.111	.00087	.00023
%RSD	5.9533	.14303	31.842	.30260	.45409	.66981	.16744	.21412	7.2477

#1	.00693	.08538	.00083	24.604	1.4215	.02131	66.342	.40764	-.00331
#2	.00637	.08555	.00053	24.709	1.4124	.02152	66.185	.40641	-.00299

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	40.042	.01036	.03943	F -.00898	.73649	-.00345	.00444	11.135	23.829
Stddev	.758	.00045	.00226	.00171	.00386	.00211	.00099	.077	.164
%RSD	1.8926	4.3084	5.7243	19.069	.52428	61.078	22.243	.68920	.68920

#1	39.506	.01068	.03784	-.01019	.73922	-.00494	.00514	11.081	23.713
#2	40.578	.01005	.04103	-.00777	.73376	-.00196	.00375	11.189	23.945

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass				
High Limit				200.00					
Low Limit				-.00600					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00045	.74419	-.00305	-.00036	.00828	.00669	.00050	.00286	-.00008
Stddev	.00028	.00018	.00039	.00027	.00269	.01463	.00038	.00065	.00159
%RSD	61.341	.02419	12.710	74.545	32.537	218.71	76.243	22.784	2088.7

#1	-.00065	.74432	-.00332	-.00017	.01019	-.00366	.00023	.00332	.00105
#2	-.00025	.74406	-.00277	-.00055	.00638	.01704	.00077	.00240	-.00120

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4882.7	64422.	6835.9
Stddev	14.9	25.	46.6
%RSD	.30526	.03950	.68223

#1	4893.2	64440.	6868.9
#2	4872.1	64404.	6802.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00029	.00805	.01428	.21693	7.8940	.00022	-.00105	82.411	.00025
Stddev	.00004	.00023	.00019	.00117	.0012	.00006	.00302	.199	.00002
%RSD	13.941	2.8890	1.3533	.54094	.01484	28.425	288.32	.24121	9.0910

#1	.00032	.00788	.01414	.21776	7.8932	.00018	-.00318	82.270	.00023
#2	.00026	.00821	.01442	.21610	7.8949	.00026	.00109	82.551	.00027

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00505	.00431	.00095	21.533	3.0080	.02614	76.671	1.1401	-.00505
Stddev	.00001	.00013	.00011	.075	.0186	.00238	.211	.0018	.00028
%RSD	.10627	3.0326	11.725	.34979	.61757	9.0878	.27539	.16040	5.4527

#1	.00506	.00422	.00087	21.480	2.9949	.02782	76.521	1.1388	-.00524
#2	.00505	.00440	.00103	21.586	3.0212	.02446	76.820	1.1413	-.00485

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	43.631	.00380	.01778	F -.00870	.22369	-.00378	.00672	9.1260	19.530
Stddev	.516	.00010	.00306	.00026	.00012	.00248	.00309	.0967	.207
%RSD	1.1824	2.5996	17.194	2.9660	.05302	65.570	45.939	1.0594	1.0594

#1	43.266	.00373	.01561	-.00851	.22378	-.00554	.00891	9.0576	19.383
#2	43.995	.00387	.01994	-.00888	.22361	-.00203	.00454	9.1944	19.676

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass				
High Limit				200.00					
Low Limit				-.00600					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00178	1.8537	.00004	-.00013	.00907	-.02452	.00099	.00164	.00070
Stddev	.00022	.0014	.00251	.00021	.00102	.03445	.00034	.00042	.00074
%RSD	12.216	.07457	7084.7	157.47	11.228	140.51	33.757	25.500	106.17

#1	-.00163	1.8527	.00181	-.00028	.00835	-.04888	.00076	.00134	.00017
#2	-.00193	1.8547	-.00174	.00001	.00979	-.00016	.00123	.00193	.00122

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4799.8	64105.	6896.7
Stddev	5.1	14.	53.6
%RSD	.10572	.02184	.77688

#1	4803.4	64115.	6934.6
#2	4796.2	64095.	6858.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0005	.00091	.00824	.04480	1.6191	.00005	.00231	17.145	-0.0011
Stddev	.00042	.00018	.00227	.00018	.0023	.00004	.00096	.013	.00023
%RSD	870.37	19.943	27.516	.41057	.14202	73.460	41.747	.07527	212.32

#1	.00025	.00078	.00984	.04467	1.6175	.00008	.00163	17.154	-.00027
#2	-.00035	.00104	.00664	.04493	1.6208	.00002	.00299	17.135	.00005

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00108	.00078	.00015	4.6059	.86738	.00738	16.164	.23975	-0.00232
Stddev	.00006	.00023	.00039	.0506	.04027	.00101	.015	.00040	.00020
%RSD	5.6773	29.508	253.18	1.0987	4.6426	13.734	.09239	.16722	8.6269

#1	.00104	.00062	-.00012	4.6417	.89585	.00810	16.153	.23947	-.00247
#2	.00113	.00095	.00043	4.5701	.83890	.00667	16.174	.24004	-.00218

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.9379	.00137	.00255	W -.00492	.06653	-.00314	.00048	1.8499	3.9588
Stddev	.0384	.00001	.00152	.00065	.00271	.00193	.00258	.0319	.0683
%RSD	.42915	.75934	59.777	13.160	4.0774	61.319	536.03	1.7246	1.7246

#1	8.9108	.00137	.00362	-.00538	.06461	-.00451	-.00134	1.8725	4.0071
#2	8.9650	.00138	.00147	-.00447	.06845	-.00178	.00231	1.8273	3.9105

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.00300					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00067	.38071	-.00193	-.00033	.00226	-.01579	.00094	.00117	.00115
Stddev	.00009	.00038	.00377	.00021	.00063	.00873	.00042	.00000	.00079
%RSD	13.268	.09982	195.10	64.254	27.742	55.271	44.575	.42085	68.653

#1	.00060	.38045	-.00460	-.00018	.00182	-.00962	.00123	.00118	.00172
#2	.00073	.38098	.00073	-.00048	.00271	-.02196	.00064	.00117	.00059

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4977.0	65396.	6831.4
Stddev	6.8	110.	11.2
%RSD	.13670	.16781	.16358

#1	4972.2	65474.	6839.3
#2	4981.8	65319.	6823.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04974	1.9301	.94335	1.1532	8.9583	.04098	F 1.9176	116.34	.09203
Stddev	.00013	.0031	.00184	.0014	.1418	.00002	.0033	.08	.00018
%RSD	.26032	.16107	.19493	.12193	1.5833	.05339	.17395	.07248	.19665

#1	.04983	1.9323	.94205	1.1522	8.8580	.04100	1.9152	116.40	.09190
#2	.04965	1.9279	.94465	1.1542	9.0586	.04096	1.9200	116.28	.09215

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.43790	W .18013	.22238	20.306	52.480	.97866	112.81	1.4658	.92122
Stddev	.00087	.00007	.00029	.034	.067	.00675	.21	.0001	.00077
%RSD	.19941	.03754	.13089	.16797	.12689	.68925	.18962	.00965	.08314

#1	.43852	.18009	.22258	20.282	52.528	.98343	112.66	1.4657	.92068
#2	.43728	.18018	.22217	20.330	52.433	.97389	112.97	1.4659	.92176

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	87.892	.43471	W 9.8545	.43499	2.0977	.45450	1.8882	16.540	35.397
Stddev	.739	.00013	.0208	.00139	.0084	.00042	.0056	.000	.000
%RSD	.84118	.02938	.21056	.31844	.40299	.09294	.29906	.00134	.00134

#1	88.414	.43462	9.8399	.43597	2.0917	.45420	1.8842	16.540	35.396
#2	87.369	.43480	9.8692	.43401	2.1037	.45480	1.8922	16.541	35.397

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.7615	2.5853	.83011	.87441	1.8129	1.7604	.43846	.41843	.41090
Stddev	.0006	.0056	.00010	.00122	.0049	.0068	.00017	.00257	.00061
%RSD	.03451	.21761	.01251	.13937	.26991	.38823	.03887	.61422	.14939

#1	1.7611	2.5892	.83019	.87354	1.8094	1.7653	.43858	.42025	.41046
#2	1.7619	2.5813	.83004	.87527	1.8163	1.7556	.43834	.41661	.41133

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4680.8	62078.	6735.3
Stddev	7.0	54.	3.8
%RSD	.14888	.08707	.05687

#1	4685.7	62117.	6738.0
#2	4675.8	62040.	6732.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05344	2.2168	1.0500	1.2535	W 10.152	.04719	F 2.0690	131.24	.10313
Stddev	.00023	.0056	.0059	.0032	.044	.00007	.0065	.38	.00043
%RSD	.43642	.25179	.56556	.25509	.43803	.14630	.31348	.29070	.41652

#1	.05327	2.2207	1.0458	1.2558	10.184	.04715	2.0736	130.97	.10343
#2	.05360	2.2128	1.0542	1.2513	10.121	.04724	2.0644	131.51	.10282

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit					10.000		.10000		
Low Limit					-.01000		-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49854	W .20975	.25542	22.862	58.804	1.1059	127.29	1.6485	1.0499
Stddev	.00027	.00140	.00051	.086	.226	.0049	.32	.0010	.0009
%RSD	.05497	.66756	.20077	.37461	.38413	.44637	.25330	.06078	.08732

#1	.49873	.21074	.25578	22.802	58.644	1.1024	127.06	1.6478	1.0505
#2	.49835	.20876	.25506	22.923	58.963	1.1094	127.52	1.6492	1.0492

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	97.551	.49867	W 11.070	.48237	2.2420	.50545	2.0841	18.065	38.658
Stddev	.514	.00360	.040	.00434	.0031	.00310	.0072	.018	.038
%RSD	.52742	.72180	.36338	.89889	.13791	.61294	.34756	.09836	.09836

#1	97.187	.50122	11.042	.48544	2.2442	.50764	2.0892	18.052	38.631
#2	97.915	.49613	11.099	.47931	2.2398	.50326	2.0790	18.077	38.685

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9810	2.9266	.96246	1.0019	1.9403	2.0245	.49753	.47512	.46812
Stddev	.0137	.0119	.00173	.0007	.0105	.0097	.00474	.00196	.00568
%RSD	.69243	.40736	.18005	.07283	.54289	.47830	.95231	.41270	1.2143

#1	1.9907	2.9182	.96123	1.0014	1.9478	2.0313	.49418	.47373	.46410
#2	1.9714	2.9350	.96368	1.0024	1.9329	2.0176	.50088	.47651	.47214

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4636.5	62001.	6773.0
Stddev	18.6	280.	25.0
%RSD	.40093	.45101	.36861

#1	4623.3	62199.	6790.6
#2	4649.6	61804.	6755.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04541	1.1550	.22519	.31716	8.0091	.04750	-.00358	101.68	.05304
Stddev	.00058	.0007	.00060	.00107	.0189	.00016	.00025	.36	.00062
%RSD	1.2687	.06055	.26549	.33726	.23619	.33501	7.1175	.35841	1.1720

#1	.04500	1.1555	.22477	.31792	7.9958	.04738	-.00340	101.42	.05348
#2	.04581	1.1545	.22562	.31640	8.0225	.04761	-.00376	101.94	.05261

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05586	.05642	.05246	22.418	25.285	.13198	95.925	1.1835	.04856
Stddev	.00056	.00052	.00030	.055	.001	.00345	.129	.0014	.00017
%RSD	.99752	.92148	.56780	.24569	.00301	2.6159	.13484	.11485	.35976

#1	.05626	.05679	.05267	22.379	25.285	.12954	96.017	1.1845	.04868
#2	.05547	.05606	.05225	22.457	25.284	.13442	95.834	1.1825	.04843

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	64.446	.05454	W 2.2667	.08921	.22001	.09937	.21837	13.499	28.887
Stddev	.157	.00036	.0171	.00014	.00519	.00036	.00031	.068	.146
%RSD	.24311	.66443	.75658	.15629	2.3568	.35956	.14112	.50650	.50650

#1	64.335	.05479	2.2789	.08911	.22368	.09912	.21816	13.450	28.784
#2	64.557	.05428	2.2546	.08931	.21634	.09962	.21859	13.547	28.991

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10111	1.9098	.19259	.05039	.21046	.47341	.05149	.20812	.04822
Stddev	.00121	.0037	.00037	.00017	.00052	.00003	.00047	.00041	.00251
%RSD	1.1927	.19536	.19307	.33179	.24744	.00676	.91944	.19507	5.2066

#1	.10197	1.9071	.19233	.05051	.21083	.47339	.05182	.20841	.04999
#2	.10026	1.9124	.19285	.05027	.21010	.47343	.05115	.20784	.04644

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4718.5	63009.	6775.5
Stddev	10.0	109.	31.8
%RSD	.21283	.17291	.46880

#1	4725.6	63086.	6798.0
#2	4711.4	62932.	6753.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00069	.00535	.00439	.00939	.00548	.00013	.00395	.17337	-.00009
Stddev	.00009	.00007	.00194	.00027	.00002	.00000	.00109	.00784	.00015
%RSD	13.188	1.2417	44.161	2.8753	.34962	3.7034	27.651	4.5239	173.06

#1	.00062	.00530	.00302	.00920	.00547	.00014	.00473	.17891	.00002
#2	.00075	.00540	.00576	.00958	.00550	.00013	.00318	.16782	-.00019

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00014	.00222	.00109	.01327	.48608	.00435	.05918	.00101	.00064
Stddev	.00007	.00023	.00038	.00051	.04593	.00193	.00204	.00003	.00011
%RSD	52.287	10.162	35.147	3.8587	9.4481	44.342	3.4471	2.8155	16.687

#1	.00009	.00206	.00136	.01291	.51856	.00572	.05774	.00099	.00071
#2	.00020	.00238	.00082	.01363	.45361	.00299	.06062	.00103	.00056

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.7010	.00205	.01277	-.00027	.04275	-.00357	.00065	.69600	1.4894
Stddev	.0279	.00031	.00107	.00010	.00008	.00061	.00040	.01223	.0262
%RSD	1.6417	15.013	8.3438	35.610	.19069	17.062	62.226	1.7578	1.7578

#1	1.7207	.00227	.01202	-.00034	.04269	-.00314	.00036	.70465	1.5079
#2	1.6812	.00183	.01353	-.00020	.04281	-.00400	.00093	.68735	1.4709

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00062	.00187	.00115	-.00016	-.00110	-.04140	.00062	.00240	-.00095
Stddev	.00066	.00001	.00036	.00023	.00108	.01681	.00005	.00001	.00042
%RSD	106.46	.47277	30.999	150.28	98.698	40.612	8.6348	.33235	43.681

#1	-.00015	.00188	.00140	.00001	-.00186	-.05329	.00058	.00239	-.00125
#2	-.00108	.00187	.00090	-.00032	-.00033	-.02951	.00066	.00241	-.00066

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4966.0	65226.	6618.2
Stddev	.4	131.	18.3
%RSD	.00724	.20097	.27679

#1	4965.7	65319.	6605.3
#2	4966.2	65133.	6631.2

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .01655	45.776	k .00180	k .00242	k .00053	k .00017	k .99828	k .00010	k -.00198	k .00071	k .00060
Stddev	.00046	.378	.00574	.00022	.00027	.00013	.00474	.00246	.00019	.00043	.00022
%RSD	2.7746	.82597	318.11	9.1220	50.899	77.323	.47502	2392.4	9.8061	61.571	35.927

#1	k .01688	45.508	k .00586	k .00227	k .00034	k .00026	k .99492	k .00184	k -.00212	k .00101	k .00045
#2	k .01623	46.043	k -.00225	k .00258	k .00072	k .00008	k 1.0016	k -.00164	k -.00184	k .00040	k .00076

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .00735	kF 43.689	.34504	.00217	k -.02301	k -.00109	k -.00149	263.09	k .00210	k .00859	k .00995
Stddev	.00017	.245	.00448	.00035	.00490	.00001	.00001	1.38	.00000	.00039	.00085
%RSD	2.2778	.56136	1.2994	16.247	21.288	.72289	.37434	.52388	.17706	4.5242	8.5017

#1	k .00747	k 43.516	.34187	.00192	k -.02647	k -.00109	k -.00149	262.12	k .00210	k .00832	k .00935
#2	k .00723	k 43.863	.34822	.00242	k -.01954	k -.00110	k -.00148	264.07	k .00211	k .00887	k .01055

Check ?	None	Chk Fail	None	None	None	None	None	Chk Pass	None	None	None
Value		50.000									
Range		-10.490%									

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k 4.9249	k -.03468	k -.01363	k -.02953	k -.06319	k -.00142	.00038	k 5.1624	k .01500	k -.00028	kW 10.502
Stddev	.0254	.00023	.00189	.01419	.03037	.00003	.00002	.0096	.00045	.00032	.042
%RSD	.51584	.65229	13.889	48.063	48.063	2.4081	6.5539	.18566	3.0242	114.62	.39994

#1	k 4.9069	k -.03452	k -.01497	k -.01949	k -.04172	k -.00140	.00040	k 5.1556	k .01468	k -.00005	k 10.472
#2	k 4.9428	k -.03484	k -.01229	k -.03957	k -.08467	k -.00145	.00036	k 5.1692	k .01532	k -.00051	k 10.532

Check ?	Chk Pass	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value											10.000
Range											5.00000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	k -.00221	k .00085	k .30310
Stddev	.00009	.00045	.00182
%RSD	4.0916	52.633	.59980

#1	k -.00228	k .00117	k .30439
#2	k -.00215	k .00054	k .30182

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4710.0	61649.	6539.1
Stddev	2.3	25.	57.4
%RSD	.04970	.04108	.87831

#1	4708.4	61667.	6579.7
#2	4711.7	61631.	6498.5

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49424	F .60769	1.0400	.51364	.52502	.47277	.00065	4.8452	.50946	.51413	.51726
Stddev	.00105	.00207	.0060	.00082	.00005	.00023	.00179	.0013	.00189	.00092	.00132
%RSD	.21308	.34006	.57746	.15982	.00936	.04859	275.50	.02643	.37154	.17882	.25489

#1	.49350	.60622	1.0443	.51306	.52498	.47293	-.00061	4.8461	.51079	.51348	.51819
#2	.49498	.60915	1.0358	.51423	.52505	.47261	.00191	4.8443	.50812	.51478	.51632

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		.50000									
Range		10.490%									

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50165	F 2.1875	W 55.067	1.0731	20.113	.50394	.52188	F 5.7154	.51873	1.0634	1.0432
Stddev	.00148	.0023	.060	.0021	.017	.00144	.00008	.0039	.00526	.0026	.0021
%RSD	.29413	.10682	.10978	.19163	.08368	.28498	.01549	.06777	1.0136	.23955	.20182

#1	.50269	2.1892	55.025	1.0716	20.101	.50293	.52182	5.7182	.52245	1.0652	1.0447
#2	.50061	2.1859	55.110	1.0745	20.125	.50496	.52194	5.7127	.51501	1.0616	1.0417

Check ?	Chk Pass	Chk Fail	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value		2.5000	50.000					5.0000			
Range		-10.490%	10.000%					10.490%			

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02881	1.0150	1.0268	4.6241	9.8955	1.0300	.51168	-.00531	.50226	1.0456	-.00954
Stddev	.00322	.0036	.0048	.0243	.0521	.0014	.00026	.00075	.00016	.0059	.02754
%RSD	11.184	.35154	.47039	.52620	.52620	.13446	.05163	14.106	.03218	.56702	288.59

#1	.03109	1.0176	1.0303	4.6413	9.9323	1.0290	.51149	-.00584	.50214	1.0414	-.02902
#2	.02653	1.0125	1.0234	4.6069	9.8587	1.0310	.51187	-.00478	.50237	1.0498	.00993

Check ?	None	Chk Pass	None	Chk Pass	Chk Pass	None					
Value											
Range											

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.49593	.49773	.47781
Stddev	.00011	.00107	.00489
%RSD	.02318	.21401	1.0229

#1	.49601	.49849	.47436
#2	.49585	.49698	.48127

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4831.5	64076.	6523.9
Stddev	.4	242.	18.9
%RSD	.00783	.37711	.28942

#1	4831.3	64247.	6537.3
#2	4831.8	63905.	6510.6

Sample Name: CCB Acquired: 6/17/2015 0:06:50 Type: QC
 Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00052	-.00004	W .00547	.00109	-.00035	.00002	.00492	-.01078	-.00017	.00018	-.00003
Stddev	.00084	.00016	.00183	.00025	.00006	.00004	.00012	.00128	.00031	.00007	.00028
%RSD	163.03	410.90	33.390	22.991	17.642	186.96	2.4132	11.860	179.73	41.551	844.33

#1	-.00008	-.00015	.00676	.00127	-.00030	.00005	.00484	-.01169	-.00039	.00023	-.00023
#2	.00111	.00008	.00418	.00092	-.00039	-.00001	.00501	-.00988	.00005	.00013	.00016

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass							
High Limit			.00500								
Low Limit			-.00500								

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00041	-.00244	.27336	.00274	-.00533	.00002	-.00009	.31730	.00063	-.00118	.00077
Stddev	.00034	.00162	.01660	.00280	.00346	.00005	.00010	.00363	.00028	.00311	.00008
%RSD	84.377	66.604	6.0717	102.25	64.869	227.93	104.65	1.1441	44.311	264.32	9.8645

#1	.00065	-.00129	.28510	.00076	-.00289	-.00001	-.00016	.31986	.00082	-.00337	.00072
#2	.00016	-.00359	.26163	.00471	-.00778	.00006	-.00002	.31473	.00043	.00102	.00083

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01603	-.00307	-.00070	.01148	.02457	-.00110	.00003	-.00145	-.00029	.00084	-.00823
Stddev	.00559	.00132	.00098	.00300	.00642	.00054	.00006	.00244	.00040	.00085	.01907
%RSD	34.904	43.035	140.58	26.134	26.134	48.686	225.28	168.12	134.98	102.36	231.53

#1	.01207	-.00213	.00000	.00936	.02003	-.00072	.00006	-.00317	-.00058	.00023	-.02172
#2	.01998	-.00400	-.00139	.01360	.02911	-.00148	-.00001	.00027	-.00001	.00144	.00525

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	-.00022	.00045	-.00140
Stddev	.00009	.00023	.00050
%RSD	41.434	50.683	36.075

#1	-.00029	.00061	-.00104
#2	-.00016	.00029	-.00176

Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4917.9	65869.	6662.7
Stddev	11.4	29.	39.7
%RSD	.23112	.04369	.59532

#1	4925.9	65849.	6634.7
#2	4909.8	65889.	6690.8

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01119	F .13046	F .02027	.10429	.01095	.00101	.11573	.20077	.00532	.01118	.01104	.01629
Stddev	.00022	.00037	.00250	.00019	.00021	.00004	.00018	.00202	.00018	.00002	.00026	.00030
%RSD	1.9946	.28358	12.335	.18343	1.9096	3.6871	.15296	1.0085	3.3530	.18494	2.3752	1.8241

#1	.01103	.13072	.01850	.10416	.01081	.00098	.11560	.19934	.00519	.01120	.01123	.01608
#2	.01135	.13019	.02203	.10443	.01110	.00103	.11585	.20221	.00544	.01117	.01086	.01650

Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass								
Value		.10000	.01500									
Range		30.000%	30.000%									

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08695	3.7542	F .01542	.21891	.01078	.02075	F 1.4621	.04402	3.1404	.00892	.01647	F .00657
Stddev	.00019	.0476	.00277	.00060	.00007	.00004	.0018	.00006	.0039	.00047	.00086	.00105
%RSD	.21830	1.2681	17.941	.27205	.65397	.20647	.12017	.13893	.12339	5.2512	5.2204	15.934

#1	.08682	3.7206	.01347	.21849	.01083	.02072	1.4633	.04398	3.1431	.00859	.01708	.00583
#2	.08709	3.7879	.01738	.21933	.01073	.02078	1.4608	.04406	3.1376	.00925	.01586	.00731

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Fail
Value			.01000				1.0000					.01000
Range			30.000%				30.000%					-30.000%

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01564	.45287	.96915	.10671	.01090	.01256	.00976	.01715	F .09354	.01109	.02253	.01295
Stddev	.00150	.02483	.05313	.00251	.00003	.00064	.00004	.00032	.01437	.00001	.00002	.00015
%RSD	9.5805	5.4825	5.4825	2.3568	.27423	5.0732	.45670	1.8570	15.359	.07052	.10621	1.1626

#1	.01670	.43532	.93157	.10848	.01088	.01211	.00979	.01737	.08338	.01110	.02255	.01305
#2	.01458	.47043	1.0067	.10493	.01092	.01301	.00973	.01692	.10370	.01109	.02251	.01284

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass							
Value									.06000			
Range									30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4878.7	65277.	6622.9
Stddev	1.0	28.	16.7
%RSD	.02074	.04339	.25204

#1	4878.0	65257.	6611.1
#2	4879.4	65297.	6634.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00069	.00691	.00298	.00150	-.00001	.00006	.00441	.00384	-.00012
Stddev	.00017	.00002	.00336	.00001	.00012	.00000	.00002	.00018	.00018
%RSD	24.326	.32494	112.73	.91794	1855.8	6.0431	.34679	4.7180	148.92

#1	.00080	.00690	.00061	.00149	-.00009	.00006	.00440	.00397	.00001
#2	.00057	.00693	.00536	.00151	.00008	.00005	.00442	.00371	-.00025

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00014	-.00012	.00051	.00286	.22529	.00327	.00163	.00016	-.00057
Stddev	.00027	.00020	.00025	.00040	.04166	.00061	.00263	.00005	.00016
%RSD	195.25	162.84	48.376	14.010	18.492	18.678	161.17	32.269	27.866

#1	-.00005	-.00026	.00034	.00258	.25475	.00371	-.00023	.00020	-.00045
#2	.00033	.00002	.00069	.00314	.19583	.00284	.00349	.00013	-.00068

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.29514	.00031	-.00002	-.00052	.02214	-.00128	-.00097	-.01100	-.02355
Stddev	.00446	.00008	.00153	.00185	.00223	.00088	.00181	.02335	.04997
%RSD	1.5119	25.133	9928.9	358.80	10.074	68.584	186.16	212.20	212.20

#1	.29829	.00037	.00106	-.00183	.02372	-.00191	-.00225	.00551	.01179
#2	.29198	.00026	-.00110	.00079	.02056	-.00066	.00031	-.02751	-.05888

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00035	.00004	-.00090	-.00038	.00002	-.00992	.00023	.00128	-.00218
Stddev	.00056	.00003	.00066	.00056	.00044	.04617	.00016	.00023	.00031
%RSD	159.32	60.834	73.673	149.84	1855.1	465.35	70.554	18.069	14.274

#1	.00004	.00006	-.00137	-.00078	-.00029	.02273	.00034	.00145	-.00240
#2	-.00075	.00002	-.00043	.00002	.00034	-.04257	.00011	.00112	-.00196

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4952.2	65924.	6671.3
Stddev	4.3	84.	15.8
%RSD	.08599	.12816	.23753

#1	4949.2	65983.	6660.1
#2	4955.2	65864.	6682.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05280	F 2.3217	1.0574	1.0684	2.1327	.04819	2.1103	48.628	.10342
Stddev	.00078	.0069	.0011	.0025	.0053	.00030	.0073	.016	.00032
%RSD	1.4718	.29774	.10094	.23690	.24738	.62850	.34539	.03288	.30844

#1	.05225	2.3266	1.0581	1.0702	2.1290	.04798	2.1154	48.639	.10365
#2	.05334	2.3168	1.0566	1.0666	2.1365	.04841	2.1051	48.617	.10320

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
High Limit		2.2299							
Low Limit		1.7300							

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51264	F .21034	.25493	F .88703	56.683	1.0974	51.215	.51065	1.0785
Stddev	.00049	.00043	.00082	.01254	.157	.0037	.035	.00024	.0015
%RSD	.09562	.20575	.32143	1.4132	.27632	.33442	.06912	.04702	.14277

#1	.51299	.21065	.25435	.87817	56.573	1.0948	51.240	.51048	1.0796
#2	.51230	.21003	.25551	.89590	56.794	1.1000	51.190	.51082	1.0774

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Pass				
High Limit		.05750		1.1500					
Low Limit		.04275		.89000					

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	55.906	.51429	11.041	.51026	2.0404	.51521	2.1129	9.3481	20.005
Stddev	1.305	.00497	.037	.00019	.0023	.00285	.0019	.1293	.277
%RSD	2.3338	.96726	.33231	.03664	.11362	.55325	.09004	1.3833	1.3833

#1	54.984	.51781	11.067	.51040	2.0421	.51722	2.1143	9.2567	19.809
#2	56.829	.51077	11.015	.51013	2.0388	.51319	2.1116	9.4396	20.201

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0636	1.0397	.97561	1.0245	2.0574	2.0778	.50794	.50428	.48603
Stddev	.0078	.0024	.00644	.0006	.0104	.0057	.00115	.00306	.00644
%RSD	.37669	.22804	.66011	.05512	.50311	.27324	.22630	.60693	1.3241

#1	2.0691	1.0380	.97106	1.0249	2.0647	2.0818	.50875	.50645	.48147
#2	2.0581	1.0414	.98017	1.0241	2.0501	2.0738	.50712	.50212	.49058

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4719.7	62292.	6536.6
Stddev	15.3	348.	15.5
%RSD	.32380	.55848	.23776

#1	4708.9	62046.	6525.6
#2	4730.5	62538.	6547.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00043	.00595	.00266	.00222	-.00035	.00009	.00374	.00693	-.00017
Stddev	.00027	.00001	.00191	.00037	.00024	.00000	.00036	.00306	.00003
%RSD	63.639	.23151	71.933	16.435	69.908	3.3104	9.7195	44.114	16.620

#1	.00024	.00594	.00401	.00248	-.00018	.00009	.00348	.00477	-.00019
#2	.00063	.00596	.00131	.00197	-.00052	.00009	.00400	.00909	-.00015

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00005	.00019	.00037	.00137	.25200	.00213	.00317	.00019	-.00007
Stddev	.00012	.00019	.00014	.00077	.02352	.00211	.00134	.00003	.00022
%RSD	261.28	100.53	38.941	55.885	9.3324	98.984	42.144	13.086	323.28

#1	.00013	.00033	.00047	.00191	.23537	.00064	.00411	.00018	-.00022
#2	-.00004	.00006	.00026	.00083	.26863	.00362	.00222	.00021	.00009

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.29058	.00045	.00163	-.00105	.02451	-.00153	-.00153	.00403	.00862
Stddev	.00114	.00014	.00159	.00036	.00025	.00082	.00048	.02628	.05623
%RSD	.39307	32.395	97.397	34.484	1.0074	53.689	31.242	652.17	652.17

#1	.29139	.00055	.00276	-.00131	.02433	-.00211	-.00187	.02261	.04839
#2	.28978	.00034	.00051	-.00080	.02468	-.00095	-.00119	-.01455	-.03114

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00018	.00001	-.00074	.00009	.00077	-.01990	.00061	.00102	-.00129
Stddev	.00079	.00017	.00038	.00008	.00013	.00224	.00031	.00004	.00046
%RSD	445.77	1353.0	51.443	88.238	16.996	11.246	51.269	4.0826	35.533

#1	.00074	.00013	-.00047	.00015	.00087	-.01831	.00039	.00099	-.00097
#2	-.00038	-.00010	-.00102	.00003	.00068	-.02148	.00083	.00105	-.00161

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4951.0	65604.	6685.3
Stddev	3.2	115.	28.6
%RSD	.06433	.17522	.42787

#1	4953.3	65685.	6665.1
#2	4948.8	65522.	6705.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00058	.00140	.00174	.00048	-.00032	-.00002	.00514	.00254	-.00033
Stddev	.00042	.00005	.00093	.00044	.00006	.00000	.00099	.00079	.00012
%RSD	72.887	3.8352	53.392	91.515	17.350	4.1068	19.375	31.191	35.898

#1	.00088	.00144	.00240	.00080	-.00028	-.00002	.00443	.00198	-.00025
#2	.00028	.00136	.00108	.00017	-.00036	-.00002	.00584	.00310	-.00041

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00028	-.00001	.00008	.00022	.18913	.00472	-.00039	.00000	-.00038
Stddev	.00048	.00001	.00017	.00123	.00268	.00079	.00061	.00000	.00031
%RSD	174.02	168.68	226.62	548.12	1.4171	16.691	156.45	1311.8	82.535

#1	-.00006	.00000	.00020	.00109	.18723	.00528	.00004	-.00003	-.00016
#2	.00061	-.00002	-.00005	-.00065	.19102	.00416	-.00083	.00002	-.00060

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.25796	.00014	.00086	-.00167	.01850	-.00386	-.00081	.01438	.03077
Stddev	.00413	.00011	.00040	.00091	.00170	.00083	.00061	.00129	.00275
%RSD	1.6012	75.605	46.179	54.260	9.1703	21.512	75.504	8.9454	8.9454

#1	.25504	.00022	.00114	-.00231	.01970	-.00445	-.00124	.01529	.03272
#2	.26088	.00007	.00058	-.00103	.01730	-.00328	-.00038	.01347	.02882

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00070	.00006	-.00136	-.00022	.00059	-.00374	.00045	.00114	-.00148
Stddev	.00006	.00006	.00135	.00028	.00064	.03246	.00018	.00061	.00077
%RSD	8.0845	95.024	98.666	130.83	106.74	868.13	39.723	53.885	51.819

#1	-.00074	.00002	-.00232	-.00042	.00104	.01921	.00032	.00157	-.00094
#2	-.00066	.00010	-.00041	-.00002	.00015	-.02669	.00057	.00070	-.00203

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4955.9	65482.	6639.0
Stddev	7.4	442.	7.3
%RSD	.14974	.67482	.11041

#1	4961.1	65794.	6633.8
#2	4950.6	65169.	6644.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05081	2.2515	1.0202	1.0352	2.0462	.04613	F 2.0570	46.609	.10046
Stddev	.00039	.0018	.0018	.0019	.0012	.00005	.0024	.115	.00006
%RSD	.76690	.08095	.18043	.18601	.05747	.10865	.11912	.24582	.06021

#1	.05053	2.2528	1.0189	1.0366	2.0471	.04617	2.0553	46.690	.10041
#2	.05108	2.2502	1.0215	1.0338	2.0454	.04610	2.0588	46.528	.10050

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49801	W .20349	.24658	.84031	54.382	1.0502	49.395	.49290	1.0385
Stddev	.00302	.00044	.00163	.00092	.095	.0004	.277	.00158	.0043
%RSD	.60556	.21632	.66015	.10923	.17536	.04329	.55998	.32033	.41873

#1	.49588	.20318	.24543	.83966	54.450	1.0505	49.199	.49178	1.0354
#2	.50015	.20381	.24773	.84096	54.315	1.0499	49.590	.49401	1.0416

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	54.461	.50082	W 10.685	.49308	1.9749	.49762	2.0514	9.0108	19.283
Stddev	.118	.00140	.006	.00002	.0120	.00119	.0038	.0042	.009
%RSD	.21589	.27986	.05154	.00387	.60612	.23861	.18566	.04678	.04678

#1	54.544	.50181	10.689	.49307	1.9664	.49678	2.0541	9.0137	19.289
#2	54.378	.49982	10.681	.49309	1.9834	.49846	2.0487	9.0078	19.277

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9935	.99830	.94604	.98918	1.9980	1.9765	.49281	.48484	.47003
Stddev	.0007	.00099	.00578	.00307	.0036	.0407	.00190	.00140	.00024
%RSD	.03714	.09896	.61119	.31017	.18143	2.0591	.38651	.28927	.05039

#1	1.9940	.99760	.94195	.98701	1.9955	1.9477	.49146	.48385	.47020
#2	1.9930	.99900	.95013	.99134	2.0006	2.0052	.49416	.48583	.46987

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4728.2	62695.	6621.0
Stddev	6.4	257.	22.0
%RSD	.13544	.41005	.33289

#1	4732.7	62876.	6605.4
#2	4723.7	62513.	6636.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05248	2.2769	1.0338	1.0506	2.0714	.04713	F 2.0765	47.185	.10213
Stddev	.00008	.0069	.0021	.0008	.0075	.00056	.0004	.119	.00040
%RSD	.16047	.30234	.20096	.07327	.36307	1.1856	.01949	.25244	.39087

#1	.05254	2.2720	1.0353	1.0501	2.0661	.04674	2.0768	47.101	.10185
#2	.05242	2.2818	1.0324	1.0511	2.0767	.04753	2.0762	47.269	.10241

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50653	W .20623	.25299	.88325	55.463	1.0637	50.605	.50541	1.0544
Stddev	.00470	.00015	.00011	.00077	.166	.0023	.128	.00036	.0019
%RSD	.92704	.07515	.04191	.08680	.29948	.21523	.25271	.07051	.18141

#1	.50321	.20612	.25306	.88270	55.345	1.0621	50.695	.50567	1.0557
#2	.50985	.20634	.25291	.88379	55.580	1.0653	50.515	.50516	1.0530

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	54.944	.50822	W 10.827	.50116	1.9967	.50588	2.0714	9.1366	19.552
Stddev	.448	.00210	.005	.00192	.0093	.00274	.0016	.0338	.072
%RSD	.81510	.41403	.04570	.38301	.46793	.54070	.07792	.36997	.36997

#1	54.627	.50673	10.831	.49980	1.9901	.50395	2.0726	9.1127	19.501
#2	55.261	.50971	10.824	.50251	2.0033	.50782	2.0703	9.1605	19.603

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 2.0269	1.0125	.96918	1.0160	2.0131	2.0424	.50238	.49348	.48074
Stddev	.0123	.0034	.00077	.0006	.0046	.0151	.00110	.00293	.00276
%RSD	.60649	.33255	.07953	.05808	.23037	.73975	.21826	.59404	.57421

#1	2.0182	1.0101	.96863	1.0164	2.0098	2.0531	.50316	.49555	.47879
#2	2.0356	1.0149	.96972	1.0156	2.0164	2.0317	.50161	.49140	.48269

Check ?	Chk Warn	Chk Pass							
High Limit	2.0000								
Low Limit	-.05000								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4733.3	62807.	6694.3
Stddev	2.6	267.	50.3
%RSD	.05427	.42532	.75125

#1	4735.1	62618.	6729.9
#2	4731.4	62996.	6658.8

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00083	8.4990	.00816	.02171	.49716	.00053	-.00238	56.614	.00043
Stddev	.00063	.0709	.00033	.00013	.00165	.00002	.00147	.079	.00027
%RSD	75.341	.83484	4.0172	.59543	.33226	3.5986	61.680	.13869	62.410

#1	.00128	8.4489	.00839	.02162	.49600	.00054	-.00342	56.558	.00024
#2	.00039	8.5492	.00793	.02180	.49833	.00051	-.00134	56.669	.00062

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02112	.00643	.01112	9.3278	3.8712	.01768	15.364	2.9837	-.00128
Stddev	.00057	.00025	.00053	.0006	.0199	.00133	.011	.0008	.00001
%RSD	2.7025	3.8243	4.7535	.00698	.51456	7.5451	.07323	.02581	.55472

#1	.02071	.00626	.01074	9.3273	3.8853	.01674	15.356	2.9843	-.00129
#2	.02152	.00661	.01149	9.3282	3.8571	.01863	15.372	2.9832	-.00128

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	46.286	.00935	.17842	.00776	31.927	-.00401	.00754	19.121	40.919
Stddev	.404	.00008	.00266	.00150	.111	.00186	.00280	.061	.131
%RSD	.87179	.84472	1.4887	19.336	.34627	46.385	37.152	.32005	.32005

#1	46.001	.00930	.18030	.00882	32.005	-.00532	.00556	19.164	41.012
#2	46.572	.00941	.17654	.00670	31.849	-.00269	.00952	19.078	40.827

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00000	.59983	.00373	.09942	.00722	-.03599	.01423	.04783	.00401
Stddev	.00046	.00186	.00029	.00094	.00061	.02379	.00078	.00045	.00184
%RSD	9579.9	.30995	7.7960	.94740	8.4218	66.105	5.5006	.94440	45.836

#1	.00033	.59852	.00394	.10009	.00679	-.01917	.01367	.04751	.00271
#2	-.00032	.60115	.00353	.09876	.00765	-.05281	.01478	.04815	.00531

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4861.4	64281.	6706.6
Stddev	6.3	26.	30.0
%RSD	.12885	.03969	.44706

#1	4856.9	64263.	6727.8
#2	4865.8	64299.	6685.4

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00059	8.9942	.01004	.01976	.47617	.00054	-.00122	54.479	.00022
Stddev	.00047	.0131	.00244	.00030	.00131	.00006	.00205	.038	.00002
%RSD	79.964	.14525	24.264	1.4940	.27583	11.554	167.91	.06995	9.3524

#1	.00092	8.9849	.01177	.01997	.47524	.00058	.00023	54.452	.00021
#2	.00026	9.0034	.00832	.01955	.47710	.00049	-.00267	54.506	.00023

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02150	.00644	.01171	9.6696	3.8450	.01670	15.005	2.8806	-.00163
Stddev	.00075	.00030	.00040	.0192	.0495	.00180	.064	.0024	.00041
%RSD	3.4838	4.6635	3.3788	.19858	1.2860	10.783	.42957	.08422	25.092

#1	.02203	.00623	.01199	9.6560	3.8100	.01543	14.959	2.8789	-.00192
#2	.02097	.00665	.01143	9.6832	3.8799	.01798	15.051	2.8823	-.00134

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	44.369	.00921	.18335	.00916	30.743	-.00454	.00701	19.021	40.704
Stddev	.572	.00023	.00080	.00079	.045	.00035	.00140	.294	.629
%RSD	1.2891	2.5186	.43798	8.6677	.14518	7.7776	19.953	1.5451	1.5451

#1	43.965	.00937	.18392	.00972	30.775	-.00479	.00800	18.813	40.259
#2	44.774	.00905	.18278	.00860	30.712	-.00429	.00602	19.228	41.149

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00026	.57980	.00231	.10157	.00892	-.00600	.01533	.04685	.00179
Stddev	.00040	.00212	.00105	.00055	.00026	.01470	.00018	.00034	.00093
%RSD	155.49	.36493	45.489	.54456	2.9421	245.14	1.1998	.72885	51.815

#1	.00003	.57831	.00306	.10118	.00874	.00440	.01546	.04709	.00244
#2	-.00055	.58130	.00157	.10196	.00911	-.01639	.01520	.04661	.00113

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4869.0	64316.	6744.7
Stddev	.8	56.	17.7
%RSD	.01618	.08717	.26218

#1	4868.5	64276.	6757.2
#2	4869.6	64355.	6732.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00091	.31879	.00620	.03149	.08241	.00006	.00171	30.051	-.00011
Stddev	.00042	.00116	.00103	.00062	.00034	.00001	.00267	.073	.00018
%RSD	45.963	.36530	16.639	1.9711	.40966	21.917	156.08	.24231	169.50

#1	.00061	.31961	.00693	.03193	.08217	.00007	.00359	30.000	.00002
#2	.00120	.31796	.00547	.03105	.08265	.00005	-.00018	30.103	-.00023

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00163	.00022	.00181	.39309	8.2698	.14547	16.370	.11255	.00139
Stddev	.00038	.00000	.00057	.00556	.0040	.00116	.002	.00043	.00017
%RSD	23.281	2.1545	31.303	1.4139	.04841	.79670	.01122	.38582	12.117

#1	.00190	.00022	.00221	.38916	8.2670	.14465	16.369	.11285	.00151
#2	.00136	.00023	.00141	.39702	8.2726	.14629	16.371	.11224	.00127

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 591.04	.00320	.03966	W -.00452	45.823	-.00587	.00069	3.4280	7.3358
Stddev	.19	.00001	.00024	.00104	.086	.00045	.00395	.0421	.0901
%RSD	.03210	.16657	.61491	22.956	.18874	7.6059	575.95	1.2280	1.2280

#1	590.90	.00319	.03949	-.00526	45.762	-.00618	-.00211	3.3982	7.2721
#2	591.17	.00320	.03984	-.00379	45.884	-.00555	.00348	3.4577	7.3995

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit	500.00			10.000					
Low Limit	11.000			-.00300					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00002	3.1954	-.00187	.00487	.00576	-.03084	.00005	.00663	-.00075
Stddev	.00015	.0012	.00116	.00027	.00053	.00046	.00002	.00049	.00071
%RSD	963.49	.03587	62.156	5.6158	9.2053	1.4851	40.141	7.3264	94.714

#1	.00009	3.1963	-.00105	.00506	.00538	-.03116	.00003	.00629	-.00025
#2	-.00012	3.1946	-.00269	.00467	.00613	-.03052	.00006	.00698	-.00126

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4563.3	59079.	6474.2
Stddev	14.0	278.	9.5
%RSD	.30586	.47024	.14750

#1	4553.5	59275.	6467.4
#2	4573.2	58882.	6480.9

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .01733	45.276	k .00387	k .00212	k .00018	k .00023	k .99278	k -.00295	k -.00184	k .00052	k .00064
Stddev	.00057	.078	.00187	.00004	.00001	.00006	.00646	.00016	.00011	.00001	.00009
%RSD	3.2731	.17206	48.475	1.8788	5.1862	25.427	.65092	5.3025	5.9426	1.0124	14.492

#1	k .01693	45.221	k .00254	k .00209	k .00017	k .00028	k .99735	k -.00284	k -.00176	k .00053	k .00058
#2	k .01773	45.331	k .00519	k .00215	k .00019	k .00019	k .98821	k -.00306	k -.00192	k .00052	k .00071

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .00754	kF 43.246	.40172	.00632	k -.01671	k -.00106	k -.00160	262.29	k .00234	k .00491	k .00912
Stddev	.00039	.262	.09507	.00047	.00201	.00011	.00003	.46	.00024	.00160	.00119
%RSD	5.1228	.60540	23.664	7.4403	12.041	10.013	1.7846	.17454	10.239	32.559	13.097

#1	k .00726	k 43.431	.33450	.00599	k -.01813	k -.00098	k -.00162	261.96	k .00217	k .00378	k .00828
#2	k .00781	k 43.061	.46895	.00665	k -.01529	k -.00113	k -.00158	262.61	k .00251	k .00604	k .00997

Check ?	None	Chk Fail	None	None	None	None	None	Chk Pass	None	None	None
Value		50.000									
Range		-10.490%									

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k 4.9282	k -.03222	k -.01577	k -.03175	k -.06794	k -.00009	.00048	k 5.1624	k .01508	k .00038	k 10.429
Stddev	.0951	.00348	.00193	.01040	.02226	.00012	.00001	.0608	.00009	.00177	.173
%RSD	1.9294	10.792	12.219	32.773	32.773	128.76	2.3864	1.1773	.59510	460.62	1.6567

#1	k 4.9954	k -.02976	k -.01713	k -.03910	k -.08368	k -.00018	.00047	k 5.1194	k .01514	k -.00087	k 10.307
#2	k 4.8610	k -.03468	k -.01440	k -.02439	k -.05219	k -.00001	.00049	k 5.2054	k .01502	k .00164	k 10.551

Check ?	Chk Pass	None	None	None	None	None	None	Chk Pass	None	None	Chk Pass
Value											
Range											

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	k -.00135	k .00084	k .30377
Stddev	.00014	.00013	.00127
%RSD	10.217	15.684	.41942

#1	k -.00145	k .00075	k .30467
#2	k -.00126	k .00094	k .30287

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4747.4	62188.	6607.5
Stddev	5.1	333.	.9
%RSD	.10783	.53480	.01289

#1	4751.0	62423.	6606.9
#2	4743.8	61953.	6608.1

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49897	F .60844	1.0443	.51546	.52315	.46896	.00037	4.8027	.51180	.51362	.51559
Stddev	.00190	.00008	.0027	.00098	.00235	.00036	.00134	.0010	.00066	.00053	.00046
%RSD	.38047	.01283	.26303	.18922	.44855	.07684	361.66	.02016	.12962	.10311	.08944

#1	.50031	.60850	1.0462	.51477	.52481	.46870	.00132	4.8020	.51227	.51400	.51591
#2	.49762	.60839	1.0423	.51615	.52149	.46921	-.00058	4.8034	.51133	.51325	.51526

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		.50000									
Range		10.490%									

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50375	F 2.1549	W 55.052	1.0749	20.310	.50844	.52267	F 5.7007	.52491	1.0736	1.0487
Stddev	.00355	.0013	.108	.0063	.032	.00101	.00038	.0189	.00089	.0006	.0028
%RSD	.70445	.05842	.19620	.58899	.15511	.19879	.07333	.33120	.16913	.05283	.26768

#1	.50626	2.1558	54.975	1.0794	20.288	.50772	.52294	5.7141	.52554	1.0740	1.0468
#2	.50124	2.1540	55.128	1.0704	20.332	.50915	.52240	5.6874	.52428	1.0732	1.0507

Check ?	Chk Pass	Chk Fail	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value		2.5000	50.000					5.0000			
Range		-10.490%	10.000%					10.490%			

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02294	1.0222	1.0301	4.5521	9.7416	1.0281	.50978	-.00362	.50499	1.0544	.01426
Stddev	.00237	.0073	.0015	.0148	.0317	.0003	.00140	.00158	.00056	.0008	.04770
%RSD	10.332	.71545	.14664	.32551	.32551	.02620	.27454	43.726	.11155	.07127	334.37

#1	.02461	1.0274	1.0311	4.5626	9.7640	1.0283	.51077	-.00250	.50459	1.0538	-.01946
#2	.02126	1.0170	1.0290	4.5417	9.7192	1.0279	.50879	-.00474	.50539	1.0549	.04799

Check ?	None	Chk Pass	None	Chk Pass	Chk Pass	None					
Value											
Range											

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.50072	.50406	.48096
Stddev	.00049	.00031	.00179
%RSD	.09759	.06094	.37133

#1	.50038	.50428	.48222
#2	.50107	.50385	.47969

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4840.6	63508.	6604.5
Stddev	14.4	168.	29.4
%RSD	.29685	.26481	.44503

#1	4850.7	63627.	6583.7
#2	4830.4	63389.	6625.3

Sample Name: CCB Acquired: 6/17/2015 0:38:56 Type: QC
 Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00032	.00042	.00307	-.00004	-.00061	.00014	.00489	-.00573	-.00023	.00008	-.00003	.00009	-.00362
Stddev	.00010	.00011	.00216	.00012	.00023	.00009	.00028	.00321	.00034	.00015	.00003	.00037	.00228
%RSD	31.379	25.880	70.502	281.84	37.482	66.976	5.6471	56.057	145.99	178.17	99.139	416.22	63.163
#1	.00025	.00050	.00154	-.00012	-.00044	.00007	.00469	-.00800	.00001	-.00002	-.00001	.00035	-.00523
#2	.00039	.00035	.00459	.00004	-.00077	.00021	.00508	-.00346	-.00047	.00018	-.00005	-.00017	-.00200

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.25867	.00429	-.00403	-.00003	-.00008	.28904	.00066	-.00340	-.00131	.01295	-.00315	-.00334	-.02484
Stddev	.01860	.00006	.00207	.00006	.00014	.00926	.00034	.00063	.00000	.00553	.00178	.00194	.02177
%RSD	7.1892	1.2830	51.391	212.92	166.03	3.2038	52.119	18.467	.33126	42.664	56.664	57.979	87.647
#1	.24552	.00433	-.00549	-.00007	.00001	.28249	.00042	-.00296	-.00132	.01686	-.00189	-.00197	-.04024
#2	.27182	.00425	-.00257	.00001	-.00018	.29559	.00090	-.00385	-.00131	.00904	-.00441	-.00471	-.00945

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.05316	-.00093	-.00006	.00045	-.00071	.00088	-.01389	.00030	-.00017	-.00108
Stddev	.04660	.00030	.00009	.00004	.00014	.00020	.00531	.00001	.00047	.00087
%RSD	87.647	32.093	152.32	9.5619	20.248	22.726	38.276	4.8394	271.03	80.951
#1	-.08611	-.00072	-.00013	.00048	-.00081	.00074	-.01764	.00029	-.00051	-.00046
#2	-.02022	-.00114	.00000	.00042	-.00061	.00102	-.01013	.00031	.00016	-.00169

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4982.6	65384.	6612.3
Stddev	10.3	238.	44.8
%RSD	.20645	.36438	.67684
#1	4989.9	65216.	6644.0
#2	4975.3	65553.	6580.7

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01139	.12862	F .02025	.10591	.01055	.00111	.11883	.19973	.00518	.01112	.01066	.01569
Stddev	.00018	.00046	.00186	.00210	.00009	.00006	.00342	.00232	.00006	.00028	.00001	.00041
%RSD	1.5791	.35976	9.1619	1.9816	.86997	5.3409	2.8822	1.1623	1.1480	2.5558	.06689	2.5947

#1	.01151	.12829	.02156	.10739	.01062	.00116	.12125	.19809	.00522	.01132	.01065	.01540
#2	.01126	.12895	.01894	.10442	.01049	.00107	.11640	.20137	.00514	.01092	.01066	.01598

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass								
Value			.01500									
Range			30.000%									

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08664	3.7506	F .01486	.22344	.01076	.02025	F 1.4007	.04419	3.2203	.00960	.01614	.00872
Stddev	.00346	.0296	.00007	.00298	.00009	.00023	.0116	.00057	.0451	.00009	.00045	.00116
%RSD	3.9964	.78899	.45474	1.3356	.86897	1.1500	.82574	1.2798	1.4011	.90626	2.7602	13.358

#1	.08419	3.7715	.01491	.22555	.01082	.02042	1.3925	.04459	3.2522	.00954	.01646	.00954
#2	.08909	3.7297	.01481	.22133	.01069	.02009	1.4088	.04379	3.1884	.00966	.01583	.00790

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value			.01000				1.0000					
Range			30.000%				30.000%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01431	.46237	.98948	.10696	.01070	.01480	.00991	.01648	.04529	.01068	.02313	.01331
Stddev	.00249	.00037	.00080	.00182	.00002	.00076	.00013	.00139	.02429	.00003	.00001	.00070
%RSD	17.378	.08100	.08100	1.7057	.22909	5.1129	1.2684	8.4097	53.617	.24757	.02387	5.2576

#1	.01606	.46264	.99004	.10825	.01068	.01427	.01000	.01746	.02812	.01070	.02313	.01380
#2	.01255	.46211	.98891	.10567	.01072	.01534	.00982	.01550	.06247	.01066	.02313	.01281

Check ?	Chk Pass											
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5012.7	66105.	6714.7
Stddev	9.4	14.	8.4
%RSD	.18673	.02149	.12505

#1	5019.3	66115.	6720.7
#2	5006.0	66095.	6708.8

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00028	3.3176	.00951	.01103	.10652	.00031	.00026	27.515	-.00002
Stddev	.00048	.0246	.00031	.00081	.00013	.00000	.00025	.024	.00011
%RSD	171.78	.74183	3.2687	7.3126	.12072	.81193	95.704	.08668	698.81

#1	.00062	3.3002	.00973	.01160	.10661	.00031	.00043	27.498	.00006
#2	-.00006	3.3350	.00929	.01046	.10643	.00031	.00008	27.532	-.00009

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00154	.00337	.00523	3.3444	2.1440	.01228	5.9157	.11908	-.00198
Stddev	.00027	.00004	.00067	.0340	.0569	.00072	.0160	.00061	.00046
%RSD	17.347	1.3193	12.852	1.0160	2.6548	5.8608	.27050	.51311	23.485

#1	.00135	.00333	.00475	3.3204	2.1037	.01279	5.9044	.11865	-.00231
#2	.00173	.00340	.00570	3.3684	2.1842	.01178	5.9270	.11951	-.00165

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.6035	.00357	.12443	-.00185	6.7552	-.00480	.00194	10.849	23.218
Stddev	.0034	.00005	.00169	.00011	.0561	.00083	.00075	.209	.446
%RSD	.04533	1.2777	1.3550	5.7600	.83112	17.247	38.390	1.9224	1.9224

#1	7.6059	.00353	.12324	-.00178	6.7155	-.00421	.00247	10.702	22.902
#2	7.6011	.00360	.12562	-.00193	6.7949	-.00538	.00142	10.997	23.533

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00022	.20400	.00069	.07081	.00604	-.01436	.00833	.01357	.00038
Stddev	.00112	.00047	.00091	.00022	.00126	.03191	.00010	.00080	.00148
%RSD	521.45	.22823	132.86	.30653	20.806	222.24	1.1823	5.8961	392.25

#1	-.00101	.20368	.00004	.07096	.00693	.00821	.00826	.01300	-.00067
#2	.00058	.20433	.00133	.07065	.00515	-.03692	.00840	.01414	.00143

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4952.6	64901.	6693.3
Stddev	5.2	36.	2.9
%RSD	.10416	.05490	.04384

#1	4956.2	64926.	6695.4
#2	4948.9	64876.	6691.2

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00047	3.9072	.00936	.01088	.11506	.00031	.00003	28.858	.00005
Stddev	.00022	.0098	.00166	.00050	.00009	.00001	.00105	.001	.00015
%RSD	46.457	.24946	17.716	4.5619	.08019	2.2422	4059.0	.00283	271.44

#1	.00062	3.9141	.00819	.01123	.11513	.00030	-.00072	28.858	.00016
#2	.00032	3.9003	.01053	.01052	.11500	.00031	.00077	28.857	-.00005

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00135	.00386	.00566	3.7646	2.3821	.01134	6.3684	.13120	-.00231
Stddev	.00028	.00022	.00003	.0072	.1570	.00184	.0014	.00028	.00015
%RSD	20.427	5.5739	.61246	.19123	6.5916	16.241	.02252	.21433	6.4321

#1	.00116	.00371	.00568	3.7595	2.2710	.01004	6.3694	.13140	-.00220
#2	.00155	.00401	.00563	3.7697	2.4931	.01265	6.3674	.13100	-.00241

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.6255	.00327	.12266	-.00160	7.2666	-.00546	.00517	11.872	25.407
Stddev	.0152	.00003	.00120	.00036	.1017	.00130	.00164	.133	.285
%RSD	.17662	.85002	.97453	22.203	1.3996	23.840	31.769	1.1224	1.1224

#1	8.6147	.00329	.12181	-.00185	7.1947	-.00454	.00401	11.778	25.205
#2	8.6362	.00325	.12350	-.00135	7.3385	-.00638	.00634	11.967	25.609

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00037	.22196	.00200	.07587	.00480	-.01922	.00933	.01518	.00054
Stddev	.00045	.00008	.00071	.00013	.00039	.00645	.00016	.00032	.00176
%RSD	120.65	.03722	35.333	.17746	8.1689	33.556	1.6949	2.0850	324.18

#1	-.00005	.22190	.00150	.07578	.00452	-.02378	.00944	.01496	.00179
#2	-.00069	.22201	.00250	.07597	.00507	-.01466	.00922	.01541	-.00070

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4953.2	64761.	6757.3
Stddev	9.7	139.	4.3
%RSD	.19640	.21472	.06319

#1	4960.1	64662.	6760.4
#2	4946.3	64859.	6754.3

Sample Name: 280-70565-d-3-c Acquired: 6/17/2015 0:49:05 Type: Unk
 Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment: 281657 200.7

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k -.00022	W 2.3146	k .00926	.01032	.08688	k .00022	k .00029	26.807	k .00014
Stddev	.00012	.0021	.00171	.00058	.00057	.00007	.00149	.075	.00023
%RSD	55.745	.09066	18.441	5.5922	.65641	30.692	510.87	.28106	168.71

#1	k -.00030	2.3131	k .00805	.01073	.08647	k .00017	k .00134	26.754	k .00030
#2	k -.00013	2.3161	k .01046	.00992	.08728	k .00027	k -.00076	26.860	k -.00003

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		500.00							
Low Limit		3.2000							

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .00084	k .00216	k .00330	2.1630	1.8378	.01106	5.4413	.08296	k -.00214
Stddev	.00022	.00007	.00010	.0165	.0485	.00142	.0025	.00009	.00048
%RSD	25.924	3.1322	3.1201	.76493	2.6386	12.793	.04649	.11399	22.440

#1	k .00068	k .00220	k .00337	2.1513	1.8035	.01006	5.4431	.08302	k -.00247
#2	k .00099	k .00211	k .00323	2.1747	1.8720	.01206	5.4395	.08289	k -.00180

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.6325	k .00234	.08730	kW -.00398	k 6.2616	k -.00364	k .00540	9.3063	19.916
Stddev	.0070	.00049	.00082	.00010	.0256	.00093	.00005	.0305	.065
%RSD	.10562	21.045	.94422	2.5474	.40892	25.554	.95084	.32766	.32766

#1	6.6276	k .00268	.08671	k -.00391	k 6.2797	k -.00430	k .00544	9.3279	19.962
#2	6.6375	k .00199	.08788	k -.00406	k 6.2435	k -.00298	k .00537	9.2848	19.869

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.00300					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k -.00010	.19202	k .00124	k .04836	k .00418	k -.00213	k .00593	k .00881	k -.00043
Stddev	.00027	.00054	.00095	.00030	.00039	.05824	.00009	.00027	.00343
%RSD	274.39	.28347	76.934	.61126	9.2956	2737.9	1.4950	3.0715	804.09

#1	k .00009	.19163	k .00191	k .04815	k .00390	k .03905	k .00586	k .00900	k -.00285
#2	k -.00029	.19240	k .00056	k .04857	k .00445	k -.04331	k .00599	k .00862	k .00200

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4949.2	65108.	6726.2
Stddev	5.2	36.	14.5
%RSD	.10588	.05470	.21520

#1	4952.9	65083.	6736.4
#2	4945.5	65133.	6716.0

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .01715	45.619	k -.00176	k .00131	k .00039	k .00016	k .98645	k -.00205	k -.00177	k .00067	k .00076
Stddev	.00070	.002	.00080	.00052	.00041	.00001	.00439	.00149	.00010	.00032	.00006
%RSD	4.0568	.00385	45.207	39.630	105.58	5.7545	.44522	72.789	5.6699	47.588	8.4099

#1	k .01764	45.620	k -.00120	k .00094	k .00068	k .00016	k .98955	k -.00099	k -.00170	k .00044	k .00071
#2	k .01666	45.618	k -.00233	k .00167	k .00010	k .00015	k .98334	k -.00310	k -.00184	k .00089	k .00080

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .00694	kF 43.501	.28408	.00400	k -.02173	k -.00110	k -.00174	264.33	k .00232	k .00703	k .00942
Stddev	.00043	.020	.00838	.00067	.00007	.00008	.00017	.28	.00018	.00036	.00063
%RSD	6.2029	.04515	2.9497	16.774	.32474	7.3792	9.5424	.10746	7.7159	5.0641	6.6376

#1	k .00664	k 43.515	.29001	.00352	k -.02178	k -.00105	k -.00186	264.53	k .00219	k .00678	k .00986
#2	k .00725	k 43.487	.27816	.00447	k -.02168	k -.00116	k -.00163	264.13	k .00244	k .00728	k .00898

Check ?	None	Chk Fail	None	None	None	None	None	Chk Pass	None	None	None
Value		50.000									
Range		-10.490%									

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k 4.9283	k -.03322	k -.01242	k -.02158	k -.04618	k -.00059	.00031	k 5.1644	k .01540	k .00202	k 10.496
Stddev	.0806	.00129	.00132	.00605	.01295	.00002	.00005	.0109	.00029	.00039	.067
%RSD	1.6364	3.8832	10.658	28.043	28.043	3.2435	17.269	.21094	1.9022	19.357	.63634

#1	k 4.8713	k -.03231	k -.01336	k -.01730	k -.03703	k -.00058	.00027	k 5.1721	k .01520	k .00230	k 10.449
#2	k 4.9854	k -.03414	k -.01149	k -.02586	k -.05534	k -.00060	.00035	k 5.1567	k .01561	k .00175	k 10.544

Check ?	Chk Pass	None	None	None	None	None	None	Chk Pass	None	None	Chk Pass
Value											
Range											

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	k -.00144	k .00111	k .30752
Stddev	.00047	.00027	.00115
%RSD	32.721	24.096	.37517

#1	k -.00111	k .00130	k .30834
#2	k -.00177	k .00092	k .30670

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4738.6	61741.	6529.6
Stddev	10.1	408.	45.5
%RSD	.21239	.66058	.69656

#1	4731.5	61452.	6497.5
#2	4745.7	62029.	6561.8

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49998	F .60485	1.0336	.51048	.52089	.46649	.00154	4.7813	.50624	.51236	.51293
Stddev	.00224	.00078	.0040	.00023	.00058	.00201	.00181	.0005	.00035	.00087	.00072
%RSD	.44779	.12865	.38697	.04554	.11111	.43037	117.66	.01063	.06824	.16908	.14127

#1	.50156	.60540	1.0365	.51064	.52048	.46507	.00282	4.7810	.50649	.51297	.51344
#2	.49840	.60430	1.0308	.51031	.52130	.46791	.00026	4.7817	.50600	.51174	.51241

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		.50000									
Range		10.490%									

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50111	F 2.1552	W 55.063	1.0759	20.386	.51141	.52001	F 5.6084	.52574	1.0678	1.0459
Stddev	.00046	.0055	.069	.0058	.033	.00116	.00150	.0117	.00079	.0008	.0015
%RSD	.09268	.25697	.12553	.54152	.16099	.22597	.28825	.20904	.15067	.07739	.14227

#1	.50144	2.1513	55.014	1.0718	20.409	.51223	.52107	5.6166	.52518	1.0672	1.0470
#2	.50079	2.1591	55.112	1.0800	20.362	.51059	.51895	5.6001	.52630	1.0684	1.0449

Check ?	Chk Pass	Chk Fail	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value		2.5000	50.000					5.0000			
Range		-10.490%	10.000%					10.490%			

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01732	1.0121	1.0183	4.5414	9.7186	1.0264	.50881	-.00326	.50799	1.0418	-.02470
Stddev	.00137	.0075	.0008	.0430	.0920	.0037	.00093	.00160	.00046	.0049	.01897
%RSD	7.8905	.73684	.08347	.94645	.94645	.35761	.18366	49.057	.08963	.46964	76.787

#1	.01828	1.0068	1.0177	4.5110	9.6536	1.0290	.50815	-.00439	.50767	1.0453	-.01129
#2	.01635	1.0174	1.0189	4.5718	9.7837	1.0238	.50947	-.00213	.50832	1.0384	-.03811

Check ?	None	Chk Pass	None	Chk Pass	Chk Pass	None					
Value											
Range											

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.50692	.51164	.48384
Stddev	.00253	.00752	.00303
%RSD	.49846	1.4691	.62658

#1	.50870	.51695	.48170
#2	.50513	.50632	.48599

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4851.2	62932.	6548.6
Stddev	3.1	445.	24.9
%RSD	.06475	.70701	.38053

#1	4849.0	62618.	6566.2
#2	4853.4	63247.	6530.9

Sample Name: CCB Acquired: 6/17/2015 0:56:42 Type: QC
 Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00072	.00011	.00293	.00033	-.00020	.00005	.00426	-.00467	-.00024	-.00006	.00002	.00031	-.00180
Stddev	.00075	.00044	.00010	.00042	.00018	.00008	.00148	.00355	.00000	.00009	.00034	.00022	.00111
%RSD	104.13	390.75	3.5383	128.83	89.662	156.72	34.672	76.167	.90770	147.41	1710.2	70.881	61.728
#1	.00124	-.00020	.00286	.00003	-.00033	.00010	.00530	-.00718	-.00025	-.00013	.00026	.00046	-.00259
#2	.00019	.00042	.00300	.00062	-.00007	-.00001	.00321	-.00215	-.00024	.00000	-.00022	.00015	-.00102

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.19470	.00365	-.00350	.00000	-.00028	.22923	.00038	-.00022	-.00092	.01167	-.00352	.00062	-.00291
Stddev	.10396	.00334	.00245	.00000	.00011	.00353	.00041	.00286	.00037	.00012	.00002	.00187	.00489
%RSD	53.396	91.492	69.922	16.546	39.225	1.5389	109.22	1285.2	40.155	1.0365	.64341	301.55	168.08
#1	.26822	.00601	-.00177	.00000	-.00036	.23172	.00067	-.00224	-.00066	.01175	-.00354	.00195	.00055
#2	.12119	.00129	-.00523	.00000	-.00020	.22673	.00009	.00180	-.00118	.01158	-.00350	-.00070	-.00637

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00623	-.00041	.00001	-.00104	-.00046	.00127	.00467	.00058	.00075	-.00007
Stddev	.01047	.00040	.00001	.00097	.00057	.00104	.00636	.00023	.00004	.00080
%RSD	168.08	97.434	80.451	92.732	124.27	81.508	136.05	39.710	5.2151	1160.0
#1	.00117	-.00069	.00001	-.00036	-.00086	.00054	.00018	.00075	.00072	.00050
#2	-.01363	-.00013	.00002	-.00173	-.00006	.00201	.00917	.00042	.00078	-.00064

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4942.3	64141.	6566.1
Stddev	3.3	133.	34.9
%RSD	.06726	.20703	.53178
#1	4939.9	64047.	6590.8
#2	4944.6	64235.	6541.4

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01119	.12904	.01903	.10801	.01073	.00101	.12313	.19943	.00545	.01107	.01084	.01607
Stddev	.00029	.00010	.00065	.00015	.00006	.00004	.00003	.00113	.00002	.00036	.00001	.00020
%RSD	2.6007	.07925	3.4182	.13932	.52496	3.8738	.02376	.56660	.35438	3.2888	.07928	1.2736

#1	.01098	.12912	.01857	.10812	.01069	.00099	.12315	.19864	.00544	.01081	.01085	.01592
#2	.01139	.12897	.01949	.10791	.01077	.00104	.12311	.20023	.00546	.01132	.01083	.01621

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08823	3.7824	F .01643	.22165	.01089	.02047	F 1.3588	.04418	3.2887	.00947	.01313	.00839
Stddev	.00072	.0654	.00349	.00182	.00001	.00002	.0017	.00033	.0050	.00023	.00125	.00165
%RSD	.81930	1.7278	21.216	.82318	.11288	.09861	.12693	.75370	.15129	2.4166	9.5141	19.615

#1	.08772	3.7362	.01396	.22036	.01089	.02048	1.3576	.04394	3.2922	.00930	.01401	.00956
#2	.08874	3.8286	.01889	.22294	.01088	.02045	1.3600	.04442	3.2851	.00963	.01225	.00723

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value			.01000				1.0000					
Range			30.000%				30.000%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01593	.45564	.97508	.10680	.01084	.01418	.01018	.01655	F .04029	.01077	.02417	.01417
Stddev	.00109	.01998	.04276	.00119	.00007	.00074	.00022	.00037	.03415	.00040	.00027	.00094
%RSD	6.8429	4.3853	4.3853	1.1173	.64322	5.2271	2.1202	2.2135	84.746	3.7284	1.1242	6.6275

#1	.01671	.46977	1.0053	.10595	.01079	.01365	.01002	.01629	.06444	.01105	.02398	.01483
#2	.01516	.44151	.94484	.10764	.01089	.01470	.01033	.01681	.01615	.01048	.02436	.01350

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass							
Value									.06000			
Range									-30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4988.9	65514.	6629.6
Stddev	2.0	295.	17.3
%RSD	.03969	.45097	.26157

#1	4987.5	65305.	6617.3
#2	4990.3	65722.	6641.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00046	.00232	.00281	.00094	-.00006	.00009	.00232	.00532	-.00002
Stddev	.00047	.00005	.00289	.00016	.00010	.00003	.00068	.00451	.00006
%RSD	100.32	2.3263	102.67	17.377	147.85	38.087	29.409	84.788	274.29

#1	.00014	.00236	.00077	.00082	.00000	.00006	.00281	.00851	.00002
#2	.00079	.00228	.00485	.00105	-.00013	.00011	.00184	.00213	-.00006

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	-.00025	.00024	.00060	.24952	.00340	.00169	.00015	-.00039
Stddev	.00007	.00015	.00031	.00136	.01055	.00210	.00259	.00010	.00009
%RSD	89.011	58.654	127.27	226.39	4.2283	61.939	152.56	65.926	23.967

#1	-.00003	-.00015	.00002	.00157	.25698	.00489	-.00013	.00008	-.00033
#2	-.00013	-.00036	.00046	-.00036	.24206	.00191	.00352	.00022	-.00046

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.20660	.00024	.00177	.00008	.01785	-.00251	-.00133	.00511	.01093
Stddev	.00737	.00100	.00120	.00106	.00127	.00238	.00276	.02412	.05162
%RSD	3.5680	421.23	68.040	1299.2	7.1207	94.746	206.94	472.07	472.07

#1	.21181	-.00047	.00262	.00083	.01875	-.00419	.00062	.02217	.04744
#2	.20138	.00095	.00092	-.00067	.01695	-.00083	-.00328	-.01195	-.02557

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00016	.00000	-.00166	-.00033	.00058	.01723	.00016	.00055	-.00139
Stddev	.00001	.0001	.00078	.00007	.00065	.01241	.00028	.00064	.00077
%RSD	3.3028	2732.7	47.351	21.875	113.77	72.037	178.37	116.22	54.921

#1	-.00016	-.00007	-.00221	-.00028	.00011	.00846	.00035	.00100	-.00085
#2	-.00016	.00006	-.00110	-.00038	.00104	.02601	-.00004	.00010	-.00193

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4956.3	65389.	6675.3
Stddev	10.3	190.	47.9
%RSD	.20761	.28985	.71682

#1	4963.6	65523.	6641.4
#2	4949.0	65255.	6709.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05230	F 2.2759	1.0227	1.0326	2.0752	.04670	2.0484	46.999	.10107
Stddev	.00058	.0002	.0084	.0011	.0011	.00008	.0035	.013	.00021
%RSD	1.1101	.00700	.82362	.10381	.05158	.17800	.17187	.02848	.20771

#1	.05189	2.2758	1.0287	1.0334	2.0745	.04664	2.0509	47.008	.10092
#2	.05271	2.2760	1.0168	1.0319	2.0760	.04675	2.0459	46.989	.10122

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
High Limit		2.2299							
Low Limit		1.7300							

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50311	F .20558	.25155	F .85986	55.522	1.0687	50.547	.50592	1.0484
Stddev	.00104	.00006	.00102	.00306	.195	.0010	.092	.00017	.0015
%RSD	.20688	.02902	.40468	.35536	.35054	.09463	.18197	.03265	.14704

#1	.50237	.20553	.25227	.85770	55.384	1.0694	50.482	.50580	1.0473
#2	.50384	.20562	.25083	.86203	55.660	1.0680	50.612	.50604	1.0495

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Pass				
High Limit		.05750		1.1500					
Low Limit		.04275		.89000					

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	54.998	.50839	10.714	.50091	1.9544	.50073	2.0302	9.0497	19.366
Stddev	.253	.00099	.019	.00008	.0007	.00029	.0048	.0674	.144
%RSD	.45946	.19544	.17443	.01510	.03771	.05881	.23492	.74504	.74504

#1	54.819	.50768	10.727	.50096	1.9549	.50052	2.0268	9.0020	19.264
#2	55.176	.50909	10.701	.50085	1.9538	.50094	2.0336	9.0974	19.468

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0137	1.0132	.96662	1.0118	2.0005	2.0440	.50517	.49490	.47372
Stddev	.0020	.0003	.00053	.0009	.0014	.0025	.00147	.00244	.00382
%RSD	.09886	.02625	.05455	.08829	.07125	.12302	.29196	.49205	.80674

#1	2.0151	1.0130	.96699	1.0111	2.0015	2.0422	.50413	.49318	.47102
#2	2.0123	1.0134	.96624	1.0124	1.9995	2.0458	.50621	.49662	.47642

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4688.4	61723.	6567.5
Stddev	.6	18.	5.8
%RSD	.01306	.02930	.08876

#1	4687.9	61710.	6571.6
#2	4688.8	61736.	6563.4

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00070	4.5115	.01078	.02883	.11944	.00041	-.00194	19.240	.00042
Stddev	.00008	.0148	.00006	.00014	.00023	.00010	.00181	.028	.00005
%RSD	11.344	.32793	.55119	.46901	.19315	24.675	93.324	.14303	12.354

#1	.00064	4.5220	.01082	.02873	.11960	.00048	-.00322	19.220	.00046
#2	.00075	4.5011	.01074	.02892	.11928	.00034	-.00066	19.259	.00038

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00369	.00466	.01117	5.1012	3.8404	.00931	5.2937	.39877	-.00093
Stddev	.00006	.00006	.00066	.0111	.0072	.00268	.0200	.00065	.00014
%RSD	1.7224	1.3236	5.8920	.21749	.18822	28.810	.37817	.16175	15.312

#1	.00364	.00470	.01163	5.0933	3.8455	.00742	5.3078	.39922	-.00083
#2	.00373	.00461	.01070	5.1090	3.8353	.01121	5.2795	.39831	-.00103

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.064	.01519	.21115	.00622	1.5634	-.00206	.00657	10.810	23.133
Stddev	.003	.00033	.00138	.00079	.0025	.00086	.00155	.012	.026
%RSD	.02482	2.1628	.65443	12.729	.16017	41.679	23.522	.11038	.11038

#1	11.066	.01543	.21212	.00566	1.5651	-.00267	.00548	10.801	23.115
#2	11.062	.01496	.21017	.00678	1.5616	-.00146	.00767	10.818	23.151

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00057	.12550	.00012	.10491	.00390	-.00254	.01193	.02905	-.00152
Stddev	.00102	.00020	.00208	.00003	.00217	.02625	.00027	.00008	.00108
%RSD	177.16	.15642	1762.0	.02748	55.687	1034.0	2.2419	.26192	70.863

#1	.00015	.12536	-.00135	.10493	.00544	.01602	.01174	.02910	-.00228
#2	-.00129	.12564	.00159	.10489	.00237	-.02110	.01212	.02899	-.00076

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4931.1	64429.	6642.7
Stddev	5.3	76.	10.9
%RSD	.10650	.11775	.16374

#1	4934.8	64375.	6635.1
#2	4927.3	64483.	6650.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00000	1.2147	.00532	.00559	.02502	.00009	.00468	4.1445	-0.0019
Stddev	.0000	.0073	.00261	.00014	.00009	.00002	.00303	.0006	.00012
%RSD	969.61	.60245	49.040	2.4302	.35871	16.821	64.846	.01429	66.202

#1	-0.0003	1.2199	.00347	.00550	.02496	.00008	.00682	4.1449	-0.0028
#2	.00002	1.2095	.00716	.00569	.02509	.00011	.00253	4.1440	-0.0010

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00065	.00079	.00236	1.0650	.93050	.00570	1.1308	.08402	-0.0068
Stddev	.00010	.00006	.00009	.0025	.02724	.00303	.0103	.00014	.00023
%RSD	14.606	8.0483	3.7779	.23268	2.9278	53.189	.91430	.16094	34.027

#1	.00072	.00083	.00230	1.0668	.91123	.00356	1.1381	.08392	-0.0084
#2	.00058	.00074	.00242	1.0633	.94976	.00785	1.1234	.08411	-0.0051

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.4652	.00368	.04474	.00184	.33425	-.00250	-.00017	2.2355	4.7839
Stddev	.0633	.00032	.00006	.00092	.00243	.00048	.00073	.0100	.0214
%RSD	2.5694	8.6850	.14054	50.024	.72646	19.187	438.94	.44793	.44793

#1	2.4204	.00346	.04479	.00119	.33254	-.00284	.00035	2.2284	4.7688
#2	2.5099	.00391	.04470	.00249	.33597	-.00216	-.00068	2.2426	4.7991

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00084	.02678	-.00057	.02106	.00067	-.04111	.00282	.00738	-.00084
Stddev	.00010	.00017	.00044	.00022	.00044	.01585	.00038	.00009	.00244
%RSD	12.446	.63868	76.829	1.0511	65.746	38.550	13.503	1.2720	290.12

#1	-0.0077	.02666	-0.0026	.02090	.00036	-.02990	.00309	.00745	.00088
#2	-0.0091	.02691	-0.0088	.02122	.00098	-.05232	.00256	.00731	-0.0256

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4966.8	64791.	6576.7
Stddev	5.0	313.	6.1
%RSD	.10080	.48380	.09249

#1	4963.3	64570.	6581.0
#2	4970.3	65013.	6572.4

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05264	11.526	1.0304	1.0628	2.2579	.04823	F 2.0403	69.168	.10150
Stddev	.00065	.120	.0013	.0026	.0248	.00030	.0076	.592	.00004
%RSD	1.2432	1.0372	.12879	.24147	1.0982	.63185	.37315	.85533	.04404

#1	.05217	11.610	1.0294	1.0610	2.2755	.04845	2.0350	69.586	.10153
#2	.05310	11.441	1.0313	1.0646	2.2404	.04801	2.0457	68.749	.10147

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50563	W .21260	.26543	7.0827	61.304	1.1031	56.484	.94282	1.0434
Stddev	.00026	.00077	.00031	.0703	.460	.0136	.013	.00070	.0014
%RSD	.05095	.36245	.11579	.99272	.75075	1.2339	.02332	.07385	.13943

#1	.50581	.21315	.26564	7.1324	61.630	1.1127	56.493	.94331	1.0444
#2	.50545	.21206	.26521	7.0330	60.979	1.0935	56.475	.94232	1.0424

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	68.114	.52095	W 10.913	.50498	3.6667	.49860	2.0391	27.954	59.821
Stddev	.817	.00030	.021	.00036	.0223	.00342	.0060	.188	.402
%RSD	1.2000	.05752	.19607	.07102	.60916	.68592	.29385	.67281	.67281

#1	68.692	.52074	10.898	.50473	3.6509	.49619	2.0349	28.087	60.106
#2	67.536	.52116	10.928	.50524	3.6825	.50102	2.0433	27.821	59.537

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9950	1.1749	.96521	1.1596	1.9778	2.0749	.52017	.52688	.47914
Stddev	.0037	.0137	.00138	.0006	.0001	.0026	.00249	.00007	.00843
%RSD	.18285	1.1668	.14277	.05546	.00683	.12415	.47913	.01377	1.7599

#1	1.9925	1.1846	.96424	1.1601	1.9779	2.0731	.52193	.52693	.48510
#2	1.9976	1.1652	.96619	1.1592	1.9777	2.0767	.51840	.52683	.47318

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4723.5	61702.	6493.0
Stddev	1.7	1.	18.1
%RSD	.03627	.00092	.27849

#1	4724.7	61702.	6480.2
#2	4722.3	61702.	6505.8

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05329	11.204	1.0365	1.0630	2.2564	.04810	F 2.0492	68.378	.10207
Stddev	.00006	.062	.0088	.0099	.0047	.00007	.0263	.001	.00146
%RSD	.11302	.55736	.85314	.93304	.21043	.15445	1.2858	.00098	1.4288

#1	.05333	11.248	1.0428	1.0700	2.2597	.04815	2.0678	68.378	.10311
#2	.05324	11.160	1.0302	1.0560	2.2530	.04804	2.0306	68.377	.10104

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51025	W .21337	.26827	6.8865	61.333	1.1067	56.935	.93451	1.0523
Stddev	.00100	.00302	.00161	.0108	.184	.0036	.039	.00130	.0056
%RSD	.19672	1.4173	.59891	.15663	.30002	.32057	.06795	.13893	.53178

#1	.51096	.21551	.26713	6.8789	61.203	1.1092	56.963	.93543	1.0562
#2	.50954	.21124	.26941	6.8941	61.464	1.1042	56.908	.93359	1.0483

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	67.682	.52389	W 10.988	.50424	3.6174	.49748	2.0400	27.351	58.530
Stddev	.306	.00476	.040	.00563	.0465	.00346	.0235	.133	.285
%RSD	.45167	.90841	.36386	1.1167	1.2843	.69480	1.1507	.48736	.48736

#1	67.898	.52725	11.016	.50822	3.6502	.49992	2.0566	27.445	58.732
#2	67.466	.52052	10.960	.50026	3.5845	.49504	2.0234	27.256	58.329

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9953	1.1701	.98176	1.1671	1.9822	2.0602	.52636	.52995	.47982
Stddev	.0230	.0025	.00000	.0011	.0253	.0029	.00118	.00255	.00093
%RSD	1.1542	.21113	.00015	.09716	1.2743	.14181	.22456	.48211	.19387

#1	2.0115	1.1719	.98176	1.1679	2.0001	2.0623	.52720	.53176	.48048
#2	1.9790	1.1684	.98176	1.1663	1.9644	2.0581	.52553	.52815	.47916

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4740.9	62041.	6535.6
Stddev	6.1	348.	9.9
%RSD	.12877	.56113	.15207

#1	4736.6	61795.	6542.6
#2	4745.2	62287.	6528.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00036	.24237	.00737	.02641	.04325	.00011	.00141	16.384	-.00001
Stddev	.00002	.00187	.00220	.00024	.00031	.00000	.00227	.006	.00006
%RSD	5.2103	.77326	29.787	.91702	.72284	2.7460	161.31	.03920	457.96

#1	.00035	.24369	.00582	.02658	.04347	.00011	.00302	16.379	.00003
#2	.00038	.24104	.00892	.02624	.04303	.00011	-.00020	16.388	-.00006

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00082	-.00001	.00435	.27392	2.8833	.00718	4.2547	.00416	-.00073
Stddev	.00024	.00003	.00068	.00738	.0305	.00076	.0113	.00001	.00006
%RSD	29.395	385.46	15.763	2.6929	1.0580	10.523	.26623	.25908	8.0265

#1	.00100	.00001	.00483	.27914	2.8617	.00771	4.2467	.00416	-.00069
#2	.00065	-.00003	.00386	.26871	2.9049	.00665	4.2627	.00415	-.00077

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	589.592 {57}	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 10.786	W 10.965	.00135	.02239	-.00205	1.3717	-.00414	.00125	3.7853
Stddev	.010	.173	.00008	.00005	.00054	.0098	.00085	.00012	.0982
%RSD	.08831	1.5757	5.6482	.22851	26.401	.71216	20.660	9.6895	2.5943

#1	10.779	11.087	.00129	.02235	-.00167	1.3786	-.00353	.00134	3.8548
#2	10.792	10.843	.00140	.02243	-.00243	1.3648	-.00474	.00116	3.7159

Check ?	Chk Warn	Chk Warn	Chk Pass						
High Limit	10.500	500.00							
Low Limit	-50000	11.000							

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.1006	.00028	.10623	-.00148	.00313	.00302	.00602	.00179	.00243
Stddev	.2102	.00023	.00013	.00008	.00015	.00021	.01443	.00012	.00016
%RSD	2.5943	80.589	.12374	5.2922	4.8829	7.0281	239.58	6.9607	6.7408

#1	8.2492	.00012	.10632	-.00154	.00323	.00317	.01622	.00188	.00231
#2	7.9520	.00044	.10614	-.00143	.00302	.00287	-.00418	.00170	.00254

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 {99}
Units	ppm
Avg	.00051
Stddev	.00144
%RSD	281.73

#1	.00153
#2	-.00051

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-70511-a-3-b Acquired: 6/17/2015 1:16:22 Type: Unk
Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
User: S. Scott Prep Date: Custom ID2: Custom ID3:
Comment: 281305 6010B

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	4888.4	64266.	6605.9
Stddev	5.5	40.	10.3
%RSD	.11298	.06283	.15562
#1	4884.5	64294.	6613.2
#2	4892.3	64237.	6598.6

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00088	3.6209	.00879	.02733	.08878	.00036	.00120	19.198	.00038
Stddev	.00040	.0398	.00302	.00024	.00028	.00005	.00124	.033	.00015
%RSD	45.312	1.0996	34.354	.87482	.31756	12.659	103.21	.17294	38.904

#1	.00116	3.5928	.01092	.02750	.08898	.00040	.00032	19.174	.00048
#2	.00060	3.6491	.00665	.02716	.08858	.00033	.00207	19.221	.00027

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00216	.00378	.00745	3.7470	3.6198	.00873	5.2892	.23114	-.00164
Stddev	.00009	.00011	.00022	.0091	.0122	.00020	.0051	.00016	.00013
%RSD	4.3622	2.8600	3.0154	.24213	.33659	2.3481	.09571	.06956	7.8412

#1	.00223	.00385	.00760	3.7534	3.6112	.00858	5.2856	.23126	-.00155
#2	.00210	.00370	.00729	3.7406	3.6284	.00887	5.2928	.23103	-.00174

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.200	.00455	.18389	.00377	2.1286	-.00398	.00419	9.9531	21.300
Stddev	.409	.00038	.00214	.00039	.0062	.00131	.00117	.0589	.126
%RSD	3.6516	8.4414	1.1658	10.394	.29239	32.904	27.806	.59206	.59206

#1	10.911	.00482	.18237	.00349	2.1242	-.00490	.00337	9.9948	21.389
#2	11.489	.00427	.18541	.00405	2.1330	-.00305	.00502	9.9114	21.210

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00042	.12687	.00137	.08062	.00383	-.02974	.00947	.02249	-.00106
Stddev	.00124	.00037	.00036	.00016	.00015	.01695	.00020	.00010	.00101
%RSD	298.90	.29395	26.385	.19512	3.9588	56.980	2.0592	.45732	94.466

#1	.00046	.12660	.00162	.08051	.00373	-.04173	.00934	.02256	-.00177
#2	-.00129	.12713	.00111	.08073	.00394	-.01776	.00961	.02242	-.00035

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4943.1	63974.	6644.0
Stddev	11.8	118.	48.3
%RSD	.23827	.18482	.72711

#1	4951.4	63891.	6609.8
#2	4934.7	64058.	6678.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00035	.28977	.00957	.02795	.05171	.00011	.00035	21.126	-0.0014
Stddev	.00026	.00108	.00211	.00011	.00002	.00007	.00041	.048	.00017
%RSD	75.701	.37443	22.019	.38050	.03316	69.052	115.58	.22821	118.44

#1	.00016	.29054	.01106	.02787	.05170	.00005	.00064	21.160	-0.0026
#2	.00053	.28900	.00808	.02802	.05172	.00016	.00006	21.092	-0.0002

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00095	.00000	.00301	.30077	3.1843	.00771	5.3354	.00577	-0.0186
Stddev	.00002	.00003	.00004	.00101	.0433	.00082	.0057	.00000	.00007
%RSD	2.0586	3731.4	1.1926	.33537	1.3607	10.702	.10753	.04141	3.8272

#1	.00094	.00002	.00298	.30148	3.2149	.00712	5.3314	.00577	-0.0191
#2	.00097	-0.00002	.00303	.30006	3.1536	.00829	5.3395	.00577	-0.0181

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.171	.00191	.02593	W -.00492	2.1983	-.00324	.00180	4.3060	9.2149
Stddev	.218	.00005	.00036	.00104	.0059	.00109	.00038	.0164	.0350
%RSD	1.6517	2.6972	1.3735	21.066	.26946	33.534	21.249	.38006	.38006

#1	13.325	.00195	.02568	-.00419	2.2025	-.00401	.00207	4.2945	9.1902
#2	13.017	.00188	.02618	-.00565	2.1941	-.00247	.00153	4.3176	9.2397

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.00300					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00036	.13785	-.00017	.00406	.00385	-.01931	.00205	.00215	-.00076
Stddev	.00012	.00013	.00049	.00016	.00022	.01974	.00034	.00029	.00019
%RSD	33.840	.09469	289.95	4.0407	5.5940	102.23	16.727	13.515	24.374

#1	.00027	.13794	.00018	.00418	.00370	-.00535	.00230	.00235	-0.0089
#2	.00044	.13775	-.00052	.00395	.00401	-.03327	.00181	.00194	-0.0063

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4999.3	65524.	6765.7
Stddev	19.2	18.	42.4
%RSD	.38338	.02745	.62640

#1	4985.7	65536.	6735.7
#2	5012.8	65511.	6795.6

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .01646	F 44.271	k .00143	k .00210	k .00029	k .00017	k .96470	k .00449	k -.00177	k .00081	k .00047
Stddev	.00040	.258	.00083	.00046	.00005	.00000	.00326	.00111	.00020	.00007	.00021
%RSD	2.4309	.58333	58.004	21.709	16.584	2.9879	.33828	24.700	11.339	8.2494	44.834

#1	k .01617	44.088	k .00202	k .00242	k .00026	k .00016	k .96700	k .00527	k -.00163	k .00076	k .00062
#2	k .01674	44.454	k .00085	k .00178	k .00033	k .00017	k .96239	k .00370	k -.00191	k .00085	k .00032

Check ?	None	Chk Fail	None	None	None	None	Chk Pass	None	None	None	None
Value		50.000									
Range		-10.490%									

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .00609	kF 41.422	.27052	.00456	k -.02185	k -.00107	k -.00167	257.22	k .00229	k .00634	k .00978
Stddev	.00005	.102	.09550	.00169	.00327	.00002	.00010	.67	.00042	.00041	.00145
%RSD	.76935	.24580	35.303	37.126	14.990	1.6504	5.8716	.26094	18.430	6.4648	14.773

#1	k .00606	k 41.350	.20299	.00336	k -.02416	k -.00109	k -.00174	256.75	k .00199	k .00663	k .01081
#2	k .00613	k 41.494	.33805	.00576	k -.01953	k -.00106	k -.00161	257.70	k .00259	k .00605	k .00876

Check ?	None	Chk Fail	None	None	None	None	None	Chk Pass	None	None	None
Value		50.000									
Range		-10.490%									

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	kW 4.7460	k -.03467	k -.01431	k -.02306	k -.04935	k -.00066	.00024	k 5.0462	k .01551	k .00017	k 10.277
Stddev	.0368	.00028	.00439	.01757	.03760	.00020	.00007	.0054	.00024	.00057	.021
%RSD	.77575	.80688	30.656	76.182	76.182	30.136	30.157	.10737	1.5594	336.62	.20256

#1	k 4.7200	k -.03487	k -.01120	k -.01064	k -.02277	k -.00052	.00019	k 5.0423	k .01569	k .00057	k 10.262
#2	k 4.7721	k -.03447	k -.01741	k -.03548	k -.07593	k -.00080	.00030	k 5.0500	k .01534	k -.00023	k 10.291

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Pass
Value	5.0000										
Range	-5.0000%										

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	k -.00129	k .00095	k .28929
Stddev	.00045	.00028	.00058
%RSD	34.523	29.628	.20189

#1	k -.00097	k .00075	k .28971
#2	k -.00160	k .00115	k .28888

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4822.4	62684.	6690.9
Stddev	7.2	98.	27.5
%RSD	.14858	.15663	.41139

#1	4827.5	62754.	6710.4
#2	4817.3	62615.	6671.5

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48521	F .58805	.99809	.49733	.50136	W .44954	-.00027	4.5804	.49334	.50078	.49441
Stddev	.00225	.00114	.00167	.00031	.00055	.00088	.00083	.0045	.00073	.00128	.00036
%RSD	.46395	.19458	.16761	.06235	.11053	.19588	302.86	.09845	.14872	.25505	.07306

#1	.48681	.58885	.99690	.49755	.50097	.44892	-.00086	4.5772	.49386	.50169	.49466
#2	.48362	.58724	.99927	.49712	.50175	.45016	.00031	4.5836	.49282	.49988	.49415

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Warn	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		.50000				.50000					
Range		10.490%				-10.000%					

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48357	F 2.0763	53.736	1.0381	19.862	.49762	.50311	5.4518	.51423	1.0423	1.0283
Stddev	.00005	.0050	.015	.0003	.078	.00215	.00175	.0085	.00127	.0079	.0073
%RSD	.01014	.24167	.02698	.03122	.39182	.43241	.34698	.15600	.24604	.76207	.71060

#1	.48361	2.0799	53.746	1.0383	19.807	.49610	.50435	5.4458	.51512	1.0367	1.0231
#2	.48354	2.0728	53.725	1.0379	19.917	.49915	.50188	5.4579	.51334	1.0479	1.0334

Check ?	Chk Pass	Chk Fail	Chk Pass								
Value		2.5000									
Range		-10.490%									

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01440	.99435	1.0010	F 4.4193	F 9.4573	1.0058	.49047	-.00184	.49343	1.0230	-.02168
Stddev	.00105	.00355	.0012	.0328	.0702	.0009	.00114	.00136	.00146	.0018	.02901
%RSD	7.2844	.35695	.12024	.74254	.74254	.08722	.23169	73.760	.29500	.17204	133.78

#1	.01514	.99184	1.0001	4.3961	9.4076	1.0052	.48967	-.00280	.49240	1.0243	-.00117
#2	.01366	.99686	1.0018	4.4425	9.5069	1.0065	.49127	-.00088	.49446	1.0218	-.04220

Check ?	None	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None
Value				5.0000	10.700						
Range				-10.490%	-10.490%						

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.49077	.49415	.46646
Stddev	.00320	.00198	.00166
%RSD	.65123	.40096	.35506

#1	.48851	.49275	.46763
#2	.49303	.49555	.46529

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4936.8	64127.	6668.7
Stddev	6.4	529.	36.3
%RSD	.12970	.82476	.54375

#1	4932.3	64501.	6643.1
#2	4941.3	63753.	6694.4

Sample Name: CCB Acquired: 6/17/2015 1:29:15 Type: QC
 Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00046	.00050	.00174	.00044	-.00010	.00022	.00261	-.00799	-.00014	.00011	-.00022	-.00008	-.00185
Stddev	.00071	.00020	.00047	.00022	.00019	.00005	.00092	.00613	.00008	.00004	.00004	.00016	.00072
%RSD	155.50	40.404	27.141	49.305	192.33	22.514	35.236	76.780	54.622	39.152	17.769	211.47	39.039

#1	.00096	.00035	.00208	.00028	.00004	.00018	.00326	-.01232	-.00020	.00008	-.00019	.00004	-.00236
#2	-.00005	.00064	.00141	.00059	-.00023	.00025	.00196	-.00365	-.00009	.00014	-.00025	-.00019	-.00134

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.25222	.00460	.00022	.00001	.00003	.21269	.00029	.00132	-.00047	.00711	-.00349	.00068	-.00979
Stddev	.04395	.00432	.00286	.00003	.00002	.00524	.00015	.00031	.00060	.00155	.00296	.00148	.00918
%RSD	17.427	93.938	1307.0	330.17	73.582	2.4628	51.382	23.228	126.94	21.852	84.895	216.17	93.787

#1	.28330	.00766	.00224	-.00001	.00005	.20899	.00039	.00110	-.00005	.00601	-.00139	.00173	-.00330
#2	.22114	.00155	-.00180	.00003	.00002	.21640	.00018	.00153	-.00089	.00821	-.00558	-.00036	-.01628

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.02095	-.00095	.00012	-.00035	-.00011	.00106	-.00545	.00029	-.00014	-.00119
Stddev	.01965	.00010	.00015	.00129	.00009	.00120	.03392	.00056	.00052	.00067
%RSD	93.787	10.197	124.92	365.65	78.090	113.55	622.28	192.62	361.87	56.115

#1	-.00706	-.00088	.00001	-.00127	-.00017	.00190	-.02944	-.00011	-.00051	-.00072
#2	-.03484	-.00102	.00022	.00056	-.00005	.00021	.01854	.00069	.00022	-.00166

Check ?	Chk Pass									
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4957.1	64962.	6611.6
Stddev	11.7	403.	21.9
%RSD	.23508	.61995	.33173

#1	4965.4	64678.	6596.1
#2	4948.9	65247.	6627.1

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01100	.12609	.01832	.10211	.01047	.00106	.11176	.19689	.00535	.01082	.01056	.01514
Stddev	.00010	.00027	.00054	.00040	.00011	.00009	.00130	.00257	.00015	.00011	.00017	.00013
%RSD	.91085	.21735	2.9667	.38692	1.0852	8.5022	1.1677	1.3048	2.8832	1.0076	1.5848	.86753

#1	.01093	.12590	.01794	.10183	.01055	.00100	.11268	.19871	.00546	.01074	.01067	.01504
#2	.01107	.12629	.01871	.10239	.01039	.00112	.11083	.19508	.00524	.01090	.01044	.01523

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08315	3.6587	F .01695	.22052	.01071	.02008	F 1.3058	.04349	3.0973	.00896	.00719	.00856
Stddev	.00181	.0035	.00194	.00026	.00012	.00048	.0157	.00005	.0225	.00006	.00093	.00099
%RSD	2.1764	.09643	11.416	.11908	1.1563	2.3999	1.2019	.11701	.72642	.70314	12.876	11.580

#1	.08443	3.6562	.01832	.22070	.01080	.01974	1.2947	.04345	3.0814	.00891	.00785	.00786
#2	.08187	3.6612	.01558	.22033	.01063	.02042	1.3169	.04352	3.1132	.00900	.00654	.00927

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value			.01000				1.0000					
Range			30.000%				30.000%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01403	.43727	.93575	.10377	.01064	.01434	.01002	.01586	.06617	.01088	.02266	.01415
Stddev	.00050	.00120	.00256	.00096	.00001	.00069	.00076	.00071	.02457	.00039	.00002	.00006
%RSD	3.5583	.27342	.27342	.92489	.10496	4.7948	7.5414	4.4638	37.138	3.6004	.09155	.45696

#1	.01438	.43642	.93394	.10309	.01065	.01483	.01055	.01636	.08354	.01116	.02267	.01420
#2	.01368	.43811	.93756	.10445	.01063	.01386	.00949	.01535	.04879	.01060	.02264	.01410

Check ?	Chk Pass											
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4981.0	65110.	6586.2
Stddev	4.7	110.	24.4
%RSD	.09404	.16874	.36975

#1	4977.7	65188.	6603.4
#2	4984.3	65033.	6569.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00026	.00773	.00485	.00089	.00003	.00000	.00174	.00656	-.00002
Stddev	.00048	.00022	.00219	.00046	.00022	.00004	.00056	.00033	.00010
%RSD	184.52	2.8916	45.191	51.778	696.94	1170.0	32.415	5.0413	574.26

#1	.00060	.00757	.00330	.00122	-.00013	.00004	.00134	.00633	-.00009
#2	-.00008	.00789	.00640	.00057	.00019	-.00003	.00213	.00680	.00005

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00010	.00011	-.00004	.01327	.22060	W .00505	.00594	.00013	-.00039
Stddev	.00000	.00008	.00009	.00081	.02290	.00088	.00363	.00010	.00015
%RSD	4.3888	68.739	211.30	6.1270	10.380	17.465	61.227	72.918	38.423

#1	.00010	.00017	.00002	.01270	.20441	.00442	.00851	.00006	-.00028
#2	.00010	.00006	-.00010	.01385	.23680	.00567	.00337	.00020	-.00050

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						.00500			
Low Limit						-.00500			

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.18043	.00030	.00073	-.00127	.01231	-.00234	.00207	-.00277	-.00593
Stddev	.00577	.00037	.00063	.00042	.00056	.00078	.00005	.01159	.02480
%RSD	3.1956	124.12	85.177	33.248	4.5404	33.378	2.2140	418.28	418.28

#1	.18451	.00004	.00029	-.00156	.01191	-.00179	.00210	-.01096	-.02346
#2	.17635	.00056	.00118	-.00097	.01270	-.00290	.00203	.00542	.01161

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00027	.00008	-.00075	.00005	.00080	-.00590	.00059	.00098	-.00138
Stddev	.00020	.00002	.00086	.00041	.00104	.04156	.00040	.00029	.00110
%RSD	74.725	21.140	113.41	880.45	129.78	704.85	68.147	29.545	80.042

#1	-.00041	.00009	-.00136	.00034	.00007	.02349	.00087	.00119	-.00216
#2	-.00013	.00007	-.00015	-.00024	.00154	-.03528	.00031	.00078	-.00060

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	5055.9	65918.	6628.5
Stddev	.3	273.	4.2
%RSD	.00498	.41363	.06294

#1	5055.7	65726.	6625.6
#2	5056.0	66111.	6631.5

Sample Name: lcs 280-281854/2-a Acquired: 6/17/2015 1:36:35 Type: Unk

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: Custom ID2: Custom ID3:

Comment: 281854 200.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05382	F 2.2853	1.0372	1.0680	2.0882	.04686	2.1002	47.077	.10330
Stddev	.00106	.0007	.0108	.0073	.0026	.00031	.0174	.137	.00060
%RSD	1.9721	.02928	1.0450	.68389	.12305	.65926	.82736	.29058	.58406

#1	.05457	2.2848	1.0295	1.0628	2.0864	.04664	2.0879	46.980	.10288
#2	.05307	2.2858	1.0448	1.0731	2.0900	.04707	2.1125	47.174	.10373

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
High Limit		2.2299							
Low Limit		1.7300							

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51064	F .20409	.25674	.89502	56.432	1.0860	51.788	.51215	1.0499
Stddev	.00391	.00203	.00015	.00088	.107	.0021	.137	.00087	.0005
%RSD	.76653	.99564	.05742	.09806	.18873	.19161	.26476	.16964	.04486

#1	.50787	.20266	.25664	.89440	56.356	1.0845	51.885	.51277	1.0502
#2	.51341	.20553	.25685	.89564	56.507	1.0874	51.691	.51154	1.0496

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	55.302	.51051	11.012	.50559	2.0055	.51423	2.1056	9.0682	19.406
Stddev	.316	.00689	.024	.00392	.0264	.00299	.0207	.0165	.035
%RSD	.57150	1.3504	.21778	.77526	1.3148	.58216	.98127	.18198	.18198

#1	55.525	.50563	10.995	.50282	1.9869	.51211	2.0910	9.0566	19.381
#2	55.078	.51538	11.029	.50836	2.0242	.51635	2.1202	9.0799	19.431

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0192	1.0206	.97954	1.0289	2.0184	2.0779	.51333	.50180	.48078
Stddev	.0188	.0018	.00091	.0041	.0170	.0001	.00206	.00146	.00180
%RSD	.92894	.17691	.09273	.40019	.84354	.00298	.40132	.29012	.37524

#1	2.0059	1.0194	.98019	1.0318	2.0064	2.0780	.51478	.50283	.48206
#2	2.0324	1.0219	.97890	1.0260	2.0304	2.0779	.51187	.50077	.47950

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4800.2	62235.	6595.8
Stddev	14.5	58.	28.5
%RSD	.30233	.09394	.43149

#1	4810.4	62194.	6575.6
#2	4789.9	62277.	6615.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00040	.49073	.00989	.02690	.05013	.00004	.00009	74.886	.00006
Stddev	.00059	.00202	.00439	.00110	.00013	.00014	.00086	.120	.00007
%RSD	147.91	.41203	44.456	4.0851	.26502	372.22	985.95	.16066	121.99

#1	-.00002	.49216	.01299	.02767	.05022	.00014	.00069	74.971	.00001
#2	.00082	.48930	.00678	.02612	.05003	-.00006	-.00052	74.801	.00010

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00023	.00008	.00236	.46541	7.0178	.07898	68.163	.04638	-.00347
Stddev	.00018	.00017	.00052	.00022	.00056	.00231	.148	.00000	.00050
%RSD	77.769	225.19	21.963	.04787	.07925	2.9208	.21743	.00300	14.315

#1	-.00010	.00019	.00199	.46556	7.0139	.07735	68.268	.04639	-.00382
#2	-.00035	-.00004	.00272	.46525	7.0217	.08061	68.059	.04638	-.00312

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	398.69	.00127	.01923	F -.01037	W 189.12	-.00602	.01152	4.5597	9.7577
Stddev	.08	.00018	.00169	.00153	.70	.00175	.00119	.0444	.0949
%RSD	.01886	14.291	8.7809	14.770	.37199	29.111	10.362	.97279	.97279

#1	398.64	.00114	.02042	-.01145	189.62	-.00478	.01067	4.5283	9.6905
#2	398.75	.00140	.01804	-.00928	188.62	-.00726	.01236	4.5910	9.8248

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				200.00	180.00				
Low Limit				-.00600	-.15000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00119	2.9084	-.00142	.00812	.00972	-.02063	.00052	.00425	.00053
Stddev	.00096	.0022	.00045	.00055	.00018	.00637	.00064	.00071	.00076
%RSD	80.808	.07423	31.991	6.7834	1.8517	30.875	122.17	16.707	141.84

#1	-.00187	2.9099	-.00174	.00773	.00959	-.02513	.00007	.00476	.00000
#2	-.00051	2.9069	-.00110	.00851	.00984	-.01612	.00098	.00375	.00107

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4627.2	59031.	6442.4
Stddev	12.2	362.	2.3
%RSD	.26417	.61341	.03592

#1	4618.6	58775.	6444.1
#2	4635.9	59287.	6440.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00046	.11591	.00729	.00516	.01017	.00001	.00613	15.761	-.00013
Stddev	.00013	.00025	.00272	.00005	.00022	.00007	.00148	.052	.00003
%RSD	28.747	.21634	37.324	.98672	2.2096	525.46	24.201	.32844	26.439

#1	.00037	.11609	.00537	.00512	.01001	.00006	.00718	15.724	-.00011
#2	.00056	.11573	.00922	.00519	.01033	-.00004	.00508	15.797	-.00016

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00005	.00000	.00074	.09735	1.7043	.02149	14.752	.00987	-.00183
Stddev	.00008	.0001	.00029	.00052	.0011	.00238	.028	.00006	.00035
%RSD	151.30	19985.	38.807	.53599	.06641	11.071	.18991	.63675	19.087

#1	.00000	-.00004	.00094	.09698	1.7051	.01980	14.732	.00982	-.00208
#2	-.00011	.00004	.00054	.09772	1.7035	.02317	14.772	.00991	-.00158

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	83.832	.00084	.00530	-.00298	39.732	-.00658	.00132	.92540	1.9803
Stddev	.226	.00076	.00072	.00051	.042	.00155	.00193	.01353	.0290
%RSD	.26933	89.961	13.583	16.992	.10535	23.487	146.54	1.4623	1.4623

#1	83.991	.00138	.00479	-.00262	39.762	-.00767	.00269	.91583	1.9599
#2	83.672	.00031	.00581	-.00334	39.702	-.00549	-.00005	.93496	2.0008

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00026	.60685	-.00283	.00116	.00339	-.01021	.00108	.00143	-.00352
Stddev	.00031	.00082	.00017	.00037	.00012	.01677	.00061	.00006	.00049
%RSD	118.67	.13478	5.8384	32.343	3.4603	164.18	56.162	3.9609	13.905

#1	-.00004	.60627	-.00272	.00142	.00347	.00164	.00151	.00147	-.00387
#2	-.00048	.60743	-.00295	.00089	.00331	-.02207	.00065	.00139	-.00318

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4837.9	62064.	6519.9
Stddev	2.1	87.	72.3
%RSD	.04417	.14044	1.1092

#1	4839.4	62002.	6571.0
#2	4836.4	62125.	6468.8

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05402	3.2195	1.0421	1.0451	2.1000	.04585	F 1.9785	119.98	.10164
Stddev	.00037	.0658	.0011	.0003	.0121	.00033	.0011	.65	.00049
%RSD	.69121	2.0451	.10635	.02527	.57365	.73056	.05537	.53930	.47939

#1	.05376	3.1730	1.0413	1.0453	2.0915	.04561	1.9778	119.52	.10198
#2	.05429	3.2661	1.0429	1.0449	2.1085	.04609	1.9793	120.44	.10129

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49399	W .19912	.25058	1.3370	64.204	1.1606	118.10	.54854	1.0298
Stddev	.00044	.00052	.00019	.0074	.461	.0097	.15	.00075	.0010
%RSD	.09000	.26129	.07675	.55598	.71765	.83783	.12567	.13705	.09415

#1	.49431	.19948	.25045	1.3317	63.878	1.1537	117.99	.54801	1.0305
#2	.49368	.19875	.25072	1.3423	64.529	1.1675	118.20	.54907	1.0291

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	449.78	.49351	W 11.198	.47190	W 192.69	.50095	2.0857	14.548	31.132
Stddev	1.77	.00131	.023	.00015	.09	.00467	.0150	.244	.522
%RSD	.39457	.26562	.20458	.03158	.04905	.93151	.71783	1.6761	1.6761

#1	448.53	.49258	11.214	.47180	192.76	.50425	2.0963	14.375	30.763
#2	451.04	.49444	11.182	.47201	192.63	.49765	2.0751	14.720	31.501

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			2.0000		180.00				
Low Limit			-1.0000		-15000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9500	3.8956	.97107	1.0301	1.8072	1.9958	.51333	.50200	.47047
Stddev	.0181	.0243	.00178	.0016	.0174	.0182	.00182	.00135	.00258
%RSD	.92925	.62431	.18280	.15294	.96289	.91118	.35380	.26882	.54736

#1	1.9628	3.8784	.96982	1.0290	1.8195	2.0087	.51204	.50296	.46865
#2	1.9372	3.9128	.97233	1.0313	1.7949	1.9830	.51461	.50105	.47229

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4507.7	57992.	6436.3
Stddev	10.4	78.	35.7
%RSD	.23114	.13449	.55466

#1	4515.0	57937.	6461.6
#2	4500.3	58048.	6411.1

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05451	3.2520	1.0486	1.0571	2.1246	.04619	F 1.9816	122.22	.10168
Stddev	.00020	.0301	.0022	.0011	.0044	.00019	.0028	.15	.00016
%RSD	.37470	.92429	.21043	.10223	.20503	.40443	.14205	.12175	.15722

#1	.05436	3.2733	1.0501	1.0564	2.1276	.04632	1.9836	122.32	.10156
#2	.05465	3.2308	1.0470	1.0579	2.1215	.04606	1.9796	122.11	.10179

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49255	W .20028	.25229	1.3308	65.440	1.1772	120.31	.55653	1.0384
Stddev	.00049	.00014	.00081	.0031	.016	.0026	.56	.00147	.0014
%RSD	.10001	.06949	.32117	.23409	.02447	.22045	.46327	.26383	.13288

#1	.49290	.20018	.25172	1.3330	65.428	1.1791	119.92	.55549	1.0393
#2	.49220	.20038	.25286	1.3286	65.451	1.1754	120.71	.55757	1.0374

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	461.12	.49431	W 11.262	.47518	W 195.70	.50236	2.0834	14.766	31.599
Stddev	.97	.00589	.036	.00024	.58	.00149	.0049	.196	.419
%RSD	.20954	1.1925	.31939	.05001	.29679	.29603	.23602	1.3245	1.3245

#1	461.81	.49848	11.287	.47535	196.11	.50341	2.0869	14.904	31.895
#2	460.44	.49014	11.236	.47501	195.29	.50131	2.0800	14.628	31.303

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			2.0000		180.00				
Low Limit			-1.0000		-15000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9549	3.9797	.98894	1.0497	1.7955	2.0559	.51983	.50592	.47787
Stddev	.0023	.0094	.00360	.0038	.0053	.0213	.00123	.00068	.00670
%RSD	.11797	.23484	.36375	.36097	.29318	1.0348	.23721	.13394	1.4024

#1	1.9565	3.9864	.98640	1.0470	1.7993	2.0709	.51896	.50544	.48261
#2	1.9533	3.9731	.99149	1.0523	1.7918	2.0408	.52070	.50640	.47313

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4543.8	58389.	6449.2
Stddev	14.0	265.	.3
%RSD	.30905	.45327	.00431

#1	4553.7	58576.	6449.4
#2	4533.8	58201.	6449.0

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .00045	W 2.3035	k .00831	.01535	.08606	k .00017	k .00076	26.334	k .00025
Stddev	.00014	.0238	.00119	.00029	.00072	.00004	.00091	.006	.00004
%RSD	30.492	1.0339	14.335	1.8958	.83862	25.804	119.66	.02175	15.960

#1	k .00036	2.2866	k .00747	.01514	.08658	k .00014	k .00141	26.330	k .00028
#2	k .00055	2.3203	k .00915	.01555	.08555	k .00020	k .00012	26.338	k .00022

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		500.00							
Low Limit		3.2000							

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .00098	k .00198	k .00338	2.0034	1.9744	.01315	5.5958	.08408	k -.00169
Stddev	.00019	.00003	.00002	.00059	.0434	.00058	.0086	.00023	.00018
%RSD	19.739	1.3127	.53761	.29451	2.1983	4.4436	.15311	.27192	10.870

#1	k .00111	.00196	k .00337	2.0076	2.0051	.01356	5.5898	.08391	k -.00182
#2	k .00084	k .00199	k .00340	1.9992	1.9437	.01273	5.6019	.08424	k -.00156

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.9830	k .00252	.08420	kW -.00391	k 6.1966	k -.00394	k .00443	9.2735	19.845
Stddev	.0035	.00007	.00077	.00057	.0187	.00132	.00207	.1392	.298
%RSD	.05060	2.6204	.91741	14.682	.30105	33.531	46.639	1.5008	1.5008

#1	6.9855	k .00247	.08365	k -.00350	k 6.1834	k -.00300	k .00589	9.3720	20.056
#2	6.9805	k .00256	.08474	k -.00431	k 6.2098	k -.00487	k .00297	9.1751	19.635

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.00300					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k -.00030	.19136	k -.00065	k .05247	k .00499	k -.02054	k .00609	k .00867	k -.00127
Stddev	.00010	.00009	.00093	.00107	.00140	.00039	.00021	.00030	.00185
%RSD	32.034	.04492	144.08	2.0343	27.975	1.9037	3.4547	3.4299	145.01

#1	k -.00023	.19142	k -.00131	k .05323	k .00401	k -.02027	k .00594	k .00846	k .00003
#2	k -.00037	.19130	k .00001	k .05172	k .00598	k -.02082	k .00624	k .00888	k -.00258

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	5013.9	64407.	6681.2
Stddev	19.0	235.	8.4
%RSD	.37846	.36435	.12575

#1	5000.5	64573.	6687.2
#2	5027.4	64241.	6675.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00071	.00214	.00360	.00083	-.00007	.00004	.00410	.01000	-.00018
Stddev	.00011	.00016	.00066	.00069	.00029	.00003	.00035	.00220	.00023
%RSD	15.540	7.4349	18.429	83.442	418.15	79.053	8.6362	22.022	123.60

#1	.00078	.00225	.00313	.00034	.00013	.00002	.00435	.01155	-.00002
#2	.00063	.00203	.00407	.00132	-.00027	.00006	.00385	.00844	-.00035

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00006	.00010	-.00006	-.00162	.29217	.00451	.00415	.00010	-.00046
Stddev	.00005	.00004	.00009	.00062	.03461	.00208	.00392	.00001	.00031
%RSD	73.834	39.860	137.36	38.307	11.847	46.070	94.467	14.528	67.348

#1	.00003	.00007	.00000	-.00206	.26770	.00598	.00138	.00009	-.00068
#2	.00010	.00013	-.00012	-.00118	.31665	.00304	.00692	.00010	-.00024

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.29089	.00066	-.00134	-.00151	.03381	-.00246	-.00038	.00003	.00007
Stddev	.00932	.00001	.00269	.00079	.00217	.00170	.00139	.00704	.01508
%RSD	3.2057	1.3478	201.20	52.417	6.4063	69.018	367.84	22319.	22319.

#1	.29748	.00067	-.00324	-.00095	.03535	-.00365	.00060	.00501	.01073
#2	.28429	.00066	.00057	-.00207	.03228	-.00126	-.00136	-.00495	-.01059

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00069	.00035	-.00017	-.00013	.00071	-.01821	.00077	.00065	-.00132
Stddev	.00028	.00001	.00095	.00011	.00117	.01328	.00012	.00017	.00317
%RSD	40.740	4.2674	547.44	82.942	166.18	72.918	14.982	26.339	240.45

#1	-.00049	.00036	.00050	-.00005	-.00012	-.00882	.00085	.00077	.00092
#2	-.00089	.00034	-.00084	-.00021	.00153	-.02759	.00069	.00053	-.00356

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	5054.4	65555.	6739.8
Stddev	18.9	322.	.4
%RSD	.37416	.49113	.00633

#1	5067.8	65327.	6740.1
#2	5041.1	65782.	6739.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0028	.75949	.01310	.03730	.13021	.00012	-0.00281	155.24	.00018
Stddev	.00008	.00859	.00292	.00120	.00104	.00003	.00163	1.02	.00008
%RSD	29.740	1.1310	22.271	3.2082	.79886	28.472	57.843	.65837	46.036

#1	-0.0022	.76556	.01104	.03815	.12948	.00010	-0.00396	154.52	.00012
#2	-0.0033	.75341	.01517	.03645	.13095	.00015	-0.00166	155.96	.00024

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0035	-0.0011	.00234	.41414	8.1978	.12723	157.77	.03279	-0.00546
Stddev	.00012	.00017	.00041	.00262	.0648	.00075	.51	.00007	.00022
%RSD	34.245	158.02	17.454	.63238	.79068	.58837	.32103	.21429	3.9671

#1	-0.0026	-0.0023	.00205	.41599	8.1520	.12776	158.13	.03274	-0.00561
#2	-0.0043	.00001	.00263	.41229	8.2437	.12670	157.41	.03284	-0.00530

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	364.00	.00101	.02303	F -.01156	F 375.38	-0.00628	.01148	6.0959	13.045
Stddev	1.66	.00007	.00311	.00037	4.78	.00204	.00160	.0336	.072
%RSD	.45504	7.2458	13.488	3.2310	1.2740	32.453	13.963	.55073	.55073

#1	362.83	.00106	.02522	-.01183	378.76	-.00484	.01034	6.1197	13.096
#2	365.17	.00096	.02083	-.01130	372.00	-.00772	.01261	6.0722	12.994

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				200.00	200.00				
Low Limit				-.00600	-.20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0175	W 5.6730	-0.00262	.01519	.01262	.02645	.00224	.00275	-0.0105
Stddev	.00088	.0048	.00172	.00101	.00146	.03799	.00012	.00002	.00186
%RSD	49.949	.08437	65.563	6.6401	11.566	143.60	5.2000	.71204	176.68

#1	-0.00237	5.6764	-.00141	.01448	.01159	-.00041	.00233	.00273	.00026
#2	-0.0113	5.6697	-.00384	.01590	.01365	.05332	.00216	.00276	-.00236

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		5.0000							
Low Limit		-.01000							

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4543.6	58307.	6432.4
Stddev	22.2	258.	47.7
%RSD	.48834	.44165	.74225

#1	4527.9	58125.	6466.1
#2	4559.2	58489.	6398.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00078	.42963	.01169	.02680	.04932	.00006	.00026	75.372	.00000
Stddev	.00009	.00132	.00382	.00073	.00004	.00004	.00012	.210	.0002
%RSD	11.479	.30810	32.681	2.7400	.07620	66.481	47.074	.27902	27791.

#1	.00085	.43056	.01439	.02731	.04929	.00003	.00035	75.223	.00011
#2	.00072	.42869	.00899	.02628	.04935	.00009	.00017	75.520	-.00012

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00044	-0.00006	.00153	.38061	7.4950	.08273	69.782	.04293	-0.00421
Stddev	.00016	.00006	.00000	.00177	.1951	.00283	.130	.00001	.00017
%RSD	36.655	105.00	.13036	.46463	2.6029	3.4181	.18635	.02473	3.9209

#1	-0.00056	-0.00011	.00153	.37936	7.3571	.08073	69.690	.04292	-0.00409
#2	-0.00033	-0.00002	.00153	.38186	7.6330	.08473	69.874	.04293	-0.00433

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	404.82	.00121	.01721	F -.00710	W 190.09	-0.00689	.00734	4.6551	9.9618
Stddev	1.97	.00006	.00236	.00034	.24	.00116	.00288	.0572	.1224
%RSD	.48560	5.1957	13.732	4.7300	.12790	16.801	39.205	1.2286	1.2286

#1	403.43	.00125	.01888	-.00734	189.92	-.00771	.00937	4.6146	9.8753
#2	406.21	.00116	.01554	-.00686	190.26	-.00607	.00530	4.6955	10.048

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				200.00	180.00				
Low Limit				-.00600	-.15000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00099	2.9441	-0.00170	.00720	.00929	-0.02473	.00111	.00420	-0.00167
Stddev	.00050	.0113	.00202	.00001	.00160	.06797	.00045	.00004	.00110
%RSD	50.478	.38346	118.80	.18188	17.260	274.85	40.433	.96951	65.864

#1	-0.00134	2.9361	-0.00312	.00721	.01042	.02333	.00143	.00423	-0.00089
#2	-0.00063	2.9521	-0.00027	.00719	.00816	-.07280	.00079	.00417	-0.00245

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4635.6	58916.	6444.8
Stddev	3.4	80.	25.2
%RSD	.07383	.13613	.39080

#1	4638.1	58859.	6462.6
#2	4633.2	58972.	6427.0

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .01725	W 44.824	k .00284	k .00157	k .00028	k .00016	k .96014	k .01525	k -.00178	k .00071	k .00057
Stddev	.00024	.172	.00360	.00032	.00007	.00001	.00977	.00345	.00002	.00005	.00023
%RSD	1.3822	.38442	126.68	20.161	26.503	5.7187	1.0172	22.640	1.0550	7.1025	39.706

#1	k .01742	44.945	k .00538	k .00135	k .00033	k .00017	k .95324	k .01769	k -.00179	k .00067	k .00041
#2	k .01709	44.702	k .00030	k .00179	k .00022	k .00015	k .96705	k .01281	k -.00176	k .00074	k .00073

Check ?	None	Chk Warn	None	None	None	None	Chk Pass	None	None	None	None
Value		50.000									
Range		-10.000%									

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .00535	kF 41.960	.37504	.00742	k -.00769	k -.00122	k -.00152	259.99	k .00226	k .00870	k .00923
Stddev	.00012	.374	.02242	.00256	.01014	.00006	.00020	1.41	.00007	.00039	.00038
%RSD	2.1715	.89178	5.9768	34.445	131.96	4.8481	13.060	.54310	2.8931	4.4824	4.0638

#1	k .00527	k 41.696	.35919	.00562	k -.00051	k -.00118	k -.00138	260.99	k .00221	k .00897	k .00950
#2	k .00543	k 42.225	.39089	.00923	k -.01486	k -.00126	k -.00166	259.00	k .00230	k .00842	k .00897

Check ?	None	Chk Fail	None	None	None	None	None	Chk Pass	None	None	None
Value		50.000									
Range		-10.490%									

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k 4.7724	k -.03281	k -.01193	k -.02113	k -.04523	k -.00125	.00108	k 5.1352	k .01618	k .00172	k 10.380
Stddev	.0840	.00090	.00033	.00149	.00319	.00013	.00007	.0078	.00040	.00054	.148
%RSD	1.7608	2.7377	2.7321	7.0431	7.0431	10.813	6.2548	.15241	2.4673	31.564	1.4255

#1	k 4.7130	k -.03218	k -.01170	k -.02008	k -.04297	k -.00115	.00113	k 5.1408	k .01590	k .00133	k 10.275
#2	k 4.8319	k -.03345	k -.01216	k -.02219	k -.04748	k -.00134	.00103	k 5.1297	k .01646	k .00210	k 10.484

Check ?	Chk Pass	None	None	None	None	None	None	Chk Pass	None	None	Chk Pass
Value											
Range											

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	k -.00183	k .00087	k .29177
Stddev	.00004	.00005	.00456
%RSD	2.2757	5.8028	1.5642

#1	k -.00186	k .00084	k .28854
#2	k -.00180	k .00091	k .29499

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4775.9	61081.	6487.8
Stddev	15.8	38.	61.3
%RSD	.33022	.06176	.94495

#1	4764.8	61107.	6444.4
#2	4787.1	61054.	6531.1

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49822	F .59184	1.0054	.50173	.50896	.45458	.00136	4.6438	.49961	.51139	.49491	.49373
Stddev	.00065	.00078	.0007	.00332	.00032	.00137	.00026	.0451	.00051	.00806	.00046	.00105
%RSD	.13137	.13131	.06821	.66173	.06192	.30200	18.893	.97180	.10133	1.5764	.09222	.21337

#1	.49868	.59129	1.0049	.49938	.50874	.45555	.00154	4.6757	.49925	.51709	.49523	.49299
#2	.49775	.59239	1.0059	.50408	.50919	.45361	.00118	4.6119	.49997	.50569	.49458	.49448

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass				
Value		.50000										
Range		10.490%										

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 2.0822	54.971	1.0616	20.326	.50740	.50457	F 5.7371	.51860	1.0553	1.0463	.04956	1.0103
Stddev	.0039	.025	.0013	.022	.00007	.00219	.0387	.00071	.0024	.0003	.00369	.0047
%RSD	.18745	.04502	.12450	.10804	.01447	.43459	.67395	.13756	.22247	.03280	7.4371	.46768

#1	2.0849	54.954	1.0626	20.341	.50735	.50612	5.7645	.51809	1.0569	1.0460	.05216	1.0136
#2	2.0794	54.989	1.0607	20.310	.50745	.50302	5.7098	.51910	1.0536	1.0465	.04695	1.0069

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass				
Value	2.5000						5.0000					
Range	-10.490%						10.490%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0082	F 4.4395	F 9.5005	1.0118	.49734	-.00160	.50238	1.0303	-.02374	.50810	.50688	.47435
Stddev	.0010	.0073	.0157	.0059	.00040	.00005	.00095	.0051	.02199	.00425	.00169	.00417
%RSD	.09511	.16521	.16521	.58130	.08100	3.1233	.18811	.49900	92.657	.83699	.33252	.87819

#1	1.0075	4.4343	9.4894	1.0160	.49763	-.00156	.50305	1.0339	-.03929	.51111	.50568	.47730
#2	1.0089	4.4447	9.5116	1.0077	.49706	-.00163	.50171	1.0266	-.00818	.50509	.50807	.47141

Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value		5.0000	10.700									
Range		-10.490%	-10.490%									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4879.8	62556.	6456.4
Stddev	8.2	215.	.0
%RSD	.16839	.34401	.00063

#1	4874.0	62708.	6456.3
#2	4885.6	62403.	6456.4

Sample Name: CCB Acquired: 6/17/2015 2:04:38 Type: QC
 Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00102	.00054	.00389	-.00022	-.00012	.00013	.00426	-.00695	-.00020	-.00003	-.00006
Stddev	.00063	.00003	.00173	.00066	.00012	.00013	.00072	.00073	.00008	.00009	.00002
%RSD	61.514	5.2328	44.374	302.39	101.46	101.65	16.883	10.519	39.135	291.78	23.987

#1	.00146	.00056	.00511	-.00069	-.00021	.00004	.00375	-.00747	-.00026	.00003	-.00007
#2	.00058	.00052	.00267	.00025	-.00003	.00023	.00477	-.00644	-.00015	-.00009	-.00005

Check ?	Chk Warn	Chk Pass									
High Limit	.00100										
Low Limit	-.00100										

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00027	-.00044	.31177	.00556	.00625	.00002	-.00006	.30075	.00021	-.00051	-.00138
Stddev	.00026	.00035	.02275	.00162	.00224	.00001	.00024	.01460	.00013	.00295	.00050
%RSD	96.529	78.970	7.2964	29.184	35.895	31.851	376.98	4.8549	62.220	576.10	36.208

#1	.00009	-.00068	.32786	.00441	.00783	.00003	-.00023	.29042	.00030	.00157	-.00102
#2	.00046	-.00019	.29569	.00670	.00466	.00002	.00011	.31107	.00012	-.00260	-.00173

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02888	-.00178	-.00052	.00456	.00976	-.00053	.00017	-.00025	-.00045	-.00018	.02581
Stddev	.00369	.00153	.00121	.00254	.00544	.00080	.00002	.00065	.00019	.00019	.01553
%RSD	12.780	86.072	235.42	55.716	55.716	150.15	14.322	263.77	41.378	109.60	60.165

#1	.03149	-.00286	.00034	.00276	.00592	-.00110	.00019	-.00070	-.00032	-.00031	.01483
#2	.02627	-.00070	-.00137	.00636	.01361	.00003	.00015	.00021	-.00058	-.00004	.03679

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00081	-.00006	-.00135
Stddev	.00011	.00069	.00089
%RSD	13.088	1158.3	65.919

#1	.00073	-.00055	-.00199
#2	.00088	.00043	-.00072

Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4991.4	63927.	6443.5
Stddev	10.6	175.	9.7
%RSD	.21291	.27300	.15019

#1	4983.8	63804.	6436.6
#2	4998.9	64050.	6450.3

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01148	.12621	F .02027	.10633	.01033	.00103	.11892	.19072	.00522	.01102	.01046	.01581
Stddev	.00025	.00074	.00091	.00141	.00012	.00004	.00039	.00316	.00006	.00003	.00003	.00022
%RSD	2.1652	.58364	4.4760	1.3250	1.1208	3.4106	.32715	1.6554	1.1918	.30452	.26805	1.4059

#1	.01130	.12673	.01963	.10733	.01042	.00100	.11864	.19295	.00518	.01099	.01048	.01565
#2	.01165	.12569	.02091	.10534	.01025	.00105	.11919	.18849	.00526	.01104	.01044	.01596

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass								
Value			.01500									
Range			30.000%									

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08179	3.7668	F .01680	.22874	.01078	.01996	F 1.3787	.04386	3.2240	.00933	.02434	.00771
Stddev	.00070	.0356	.00004	.00210	.00016	.00032	.0374	.00002	.0176	.00171	.00094	.00300
%RSD	.85442	.94597	.25523	.91975	1.4807	1.5959	2.7136	.04329	.54700	18.312	3.8463	38.943

#1	.08228	3.7416	.01683	.23023	.01089	.02019	1.4052	.04387	3.2365	.01054	.02368	.00559
#2	.08130	3.7920	.01677	.22725	.01066	.01974	1.3523	.04384	3.2116	.00812	.02500	.00983

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value			.01000				1.0000					
Range			30.000%				30.000%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01400	.44639	.95528	.10299	.01042	.01314	.01022	.01729	.05203	.01105	.02394	.01110
Stddev	.00276	.00427	.00914	.00006	.00014	.00046	.00030	.00025	.00967	.00010	.00081	.00224
%RSD	19.712	.95729	.95729	.06099	1.3840	3.5284	2.9041	1.4540	18.592	.87368	3.3673	20.171

#1	.01595	.44337	.94881	.10303	.01053	.01347	.01043	.01711	.04519	.01112	.02451	.01268
#2	.01205	.44941	.96175	.10294	.01032	.01282	.01001	.01747	.05887	.01098	.02337	.00952

Check ?	Chk Pass											
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5020.1	64186.	6519.6
Stddev	19.0	38.	9.0
%RSD	.37926	.05908	.13788

#1	5006.6	64159.	6526.0
#2	5033.5	64213.	6513.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00049	.00337	.00542	.00024	.00003	.00007	.00650	.01009	-.00023
Stddev	.00032	.00017	.00124	.00022	.00008	.00006	.00086	.00030	.00014
%RSD	65.715	5.0003	22.920	90.314	263.16	90.184	13.284	3.0102	59.816

#1	.00026	.00325	.00454	.00009	-.00003	.00011	.00589	.00988	-.00013
#2	.00072	.00349	.00630	.00040	.00009	.00002	.00711	.01031	-.00033

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00013	.00020	-.00033	W .09973	.24923	.00488	.00137	.00056	-.00040
Stddev	.00006	.00011	.00016	.00014	.01448	.00136	.00548	.00002	.00002
%RSD	49.662	53.969	48.716	.14073	5.8113	27.905	399.76	3.1066	6.2287

#1	-.00008	.00013	-.00022	.09963	.25947	.00584	.00524	.00055	-.00038
#2	-.00017	.00028	-.00045	.09983	.23899	.00392	-.00250	.00057	-.00041

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				.05000					
Low Limit				-.05000					

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.24559	.00052	.00111	-.00141	.02616	-.00271	.00017	-.01268	-.02715
Stddev	.00048	.00015	.00103	.00028	.00063	.00099	.00013	.01083	.02317
%RSD	.19664	29.541	92.698	20.022	2.4046	36.398	72.526	85.368	85.368

#1	.24594	.00063	.00038	-.00121	.02661	-.00341	.00008	-.02034	-.04353
#2	.24525	.00041	.00185	-.00162	.02572	-.00201	.00026	-.00503	-.01076

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00018	.00005	-.00013	-.00039	.00009	-.02187	.00021	.00185	-.00017
Stddev	.00009	.00005	.00084	.00038	.00074	.03469	.00048	.00040	.00033
%RSD	46.648	108.59	662.35	97.685	787.59	158.62	230.14	21.823	188.71

#1	-.00024	.00001	.00047	-.00012	.00062	.00266	.00055	.00156	-.00041
#2	-.00012	.00008	-.00072	-.00066	-.00043	-.04639	-.00013	.00213	.00006

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4987.3	64136.	6544.8
Stddev	8.5	305.	22.0
%RSD	.17100	.47555	.33636

#1	4993.4	63920.	6529.3
#2	4981.3	64351.	6560.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05356	F 2.2561	1.0196	1.0505	2.0638	.04606	2.0419	46.239	.10086
Stddev	.00087	.0118	.0011	.0035	.0024	.00010	.0021	.193	.00028
%RSD	1.6296	.52171	.11000	.33449	.11738	.21739	.10480	.41765	.27731

#1	.05418	2.2644	1.0204	1.0530	2.0655	.04613	2.0434	46.375	.10106
#2	.05294	2.2478	1.0188	1.0480	2.0621	.04598	2.0404	46.102	.10066

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
High Limit		2.2299							
Low Limit		1.7300							

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50087	F .20059	.25229	F .83665	56.265	1.0822	51.497	.50900	1.0300
Stddev	.00210	.00094	.00058	.00992	.148	.0012	.002	.00036	.0025
%RSD	.41928	.46816	.23183	1.1856	.26274	.10583	.00394	.07091	.23919

#1	.50236	.20125	.25270	.84366	56.369	1.0814	51.498	.50874	1.0317
#2	.49939	.19993	.25188	.82964	56.160	1.0830	51.495	.50925	1.0282

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Pass				
High Limit		.05750		1.1500					
Low Limit		.04275		.89000					

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	55.629	.50663	10.783	.50192	1.9702	.50464	2.0509	9.0305	19.325
Stddev	.750	.00084	.023	.00062	.0037	.00258	.0095	.0712	.152
%RSD	1.3474	.16542	.21672	.12388	.18633	.51195	.46449	.78840	.78840

#1	56.159	.50723	10.799	.50236	1.9676	.50646	2.0576	9.0808	19.433
#2	55.099	.50604	10.766	.50149	1.9728	.50281	2.0442	8.9801	19.217

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9892	1.0089	.97012	1.0238	1.9733	2.0591	.51013	.50249	.48013
Stddev	.0070	.0006	.00246	.0001	.0022	.0428	.00143	.00024	.00602
%RSD	.35368	.05942	.25365	.01412	.11118	2.0775	.27951	.04854	1.2542

#1	1.9942	1.0093	.96838	1.0239	1.9748	2.0288	.51114	.50267	.48439
#2	1.9842	1.0085	.97186	1.0237	1.9717	2.0893	.50912	.50232	.47587

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4767.8	61362.	6392.5
Stddev	23.1	273.	36.6
%RSD	.48436	.44485	.57235

#1	4751.5	61555.	6366.7
#2	4784.1	61169.	6418.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00155	.35207	.01219	.03059	.03888	.00006	.00020	185.74	.00012
Stddev	.00024	.00181	.00217	.00052	.00016	.00017	.00083	.17	.00007
%RSD	15.438	.51514	17.829	1.7085	.40176	259.23	403.09	.09182	55.373

#1	.00172	.35078	.01066	.03096	.03877	.00018	-.00038	185.61	.00017
#2	.00138	.35335	.01373	.03022	.03899	-.00005	.00079	185.86	.00007

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00063	-.00046	.00230	.21171	6.4809	.07692	140.32	.00585	-.00508
Stddev	.00014	.00012	.00004	.00862	.1383	.00226	.22	.00004	.00023
%RSD	21.658	25.662	1.7607	4.0701	2.1342	2.9336	.15640	.64801	4.5463

#1	-.00073	-.00038	.00233	.20562	6.3831	.07852	140.16	.00588	-.00524
#2	-.00054	-.00054	.00227	.21781	6.5787	.07532	140.48	.00582	-.00491

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	376.43	.00035	.07063	F -.01331	F 398.92	-.00344	.01452	4.9653	10.626
Stddev	.38	.00039	.00135	.00314	.72	.00186	.00153	.0562	.120
%RSD	.10140	111.81	1.9091	23.612	.17962	54.129	10.523	1.1315	1.1315

#1	376.70	.00063	.07158	-.01553	399.43	-.00212	.01560	4.9256	10.541
#2	376.16	.00007	.06967	-.01109	398.41	-.00476	.01344	5.0050	10.711

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				200.00	200.00				
Low Limit				-.00600	-.20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00188	W 5.0098	-.00084	.00733	.01111	-.04199	.00140	.00704	-.00085
Stddev	.00007	.0196	.00132	.00112	.00107	.02489	.00065	.00025	.00207
%RSD	3.8193	.39101	158.35	15.299	9.6604	59.258	46.461	3.5347	243.66

#1	-.00193	4.9960	.00010	.00813	.01187	-.05959	.00094	.00686	-.00231
#2	-.00183	5.0237	-.00177	.00654	.01036	-.02440	.00186	.00721	.00061

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		5.0000							
Low Limit		-.01000							

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4514.7	57769.	6448.0
Stddev	18.2	4.	9.7
%RSD	.40359	.00635	.15041

#1	4501.9	57767.	6454.8
#2	4527.6	57772.	6441.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00070	.08869	.01060	.00622	.00806	.00010	.00381	38.353	-.00040
Stddev	.00033	.00061	.00065	.00038	.00000	.00001	.00279	.198	.00014
%RSD	46.837	.68942	6.1625	6.1497	.00285	11.439	73.215	.51696	34.855

#1	.00093	.08912	.01013	.00595	.00806	.00010	.00184	38.493	-.00050
#2	.00047	.08825	.01106	.00649	.00806	.00011	.00578	38.213	-.00030

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00016	-.00026	.00019	.04395	1.5135	.01864	29.336	.00128	-.00315
Stddev	.00017	.00002	.00053	.00124	.0769	.00013	.069	.00001	.00017
%RSD	102.45	6.5621	283.46	2.8230	5.0795	.71811	.23397	.96233	5.2817

#1	-.00005	-.00028	.00056	.04483	1.5679	.01855	29.288	.00127	-.00303
#2	-.00028	-.00025	-.00019	.04307	1.4592	.01874	29.385	.00129	-.00327

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	79.084	.00040	.01589	F -.00650	81.685	-.00754	.00356	1.0055	2.1518
Stddev	1.313	.00029	.00263	.00046	.093	.00024	.00157	.0137	.0294
%RSD	1.6605	72.210	16.575	7.1087	.11437	3.2106	44.030	1.3669	1.3669

#1	80.012	.00019	.01403	-.00682	81.619	-.00771	.00245	1.0152	2.1726
#2	78.155	.00060	.01775	-.00617	81.751	-.00736	.00467	.99580	2.1310

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass				
High Limit				200.00					
Low Limit				-.00600					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00039	1.0209	.00042	.00065	.00651	-.00955	-.00005	.00235	-.00012
Stddev	.00010	.0022	.00250	.00014	.00138	.02892	.00002	.00005	.00150
%RSD	25.740	.21359	595.01	21.257	21.206	302.92	42.293	2.2422	1272.7

#1	-.00032	1.0225	-.00135	.00055	.00749	.01090	-.00007	.00231	.00094
#2	-.00046	1.0194	.00219	.00075	.00554	-.02999	-.00004	.00238	-.00118

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4804.5	60190.	6292.9
Stddev	14.4	383.	16.2
%RSD	.30037	.63579	.25792

#1	4794.3	59920.	6281.4
#2	4814.7	60461.	6304.4

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05165	W 2.8312	1.0084	1.0152	2.0275	.04386	F 1.9071	227.34	.09801
Stddev	.00088	.0093	.0037	.0008	.0004	.00014	.0033	2.80	.00030
%RSD	1.6962	.32891	.36705	.07743	.01943	.31442	.17403	1.2298	.30503

#1	.05104	2.8246	1.0110	1.0146	2.0278	.04376	1.9047	225.37	.09780
#2	.05227	2.8378	1.0058	1.0157	2.0273	.04395	1.9094	229.32	.09822

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit		500.00					.10000		
Low Limit		3.2000					-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47409	W .19198	.24190	1.0308	62.960	1.1462	188.43	.49735	.98836
Stddev	.00248	.00018	.00020	.0029	.256	.0061	.29	.00039	.00182
%RSD	.52351	.09154	.08237	.28388	.40642	.53184	.15556	.07848	.18382

#1	.47234	.19186	.24204	1.0329	62.779	1.1418	188.22	.49708	.98707
#2	.47585	.19211	.24176	1.0288	63.141	1.1505	188.64	.49763	.98964

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	426.61	.47481	W 10.949	.45077	F 402.14	.47878	2.0132	14.178	30.341
Stddev	1.20	.00046	.010	.00130	.48	.00173	.0086	.062	.132
%RSD	.28245	.09607	.09162	.28884	.12018	.36119	.42637	.43410	.43410

#1	425.75	.47449	10.956	.45169	401.79	.48000	2.0072	14.222	30.434
#2	427.46	.47513	10.941	.44985	402.48	.47756	2.0193	14.135	30.248

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			2.0000		200.00				
Low Limit			-1.0000		-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.8541	W 5.9258	.95172	1.0004	1.7105	1.9454	.50404	.48679	.46370
Stddev	.0053	.0629	.00122	.0019	.0029	.0057	.00119	.00249	.00072
%RSD	.28490	1.0619	.12828	.18638	.16639	.29255	.23645	.51223	.15619

#1	1.8504	5.8813	.95086	.99907	1.7084	1.9494	.50320	.48502	.46421
#2	1.8578	5.9703	.95258	1.0017	1.7125	1.9413	.50489	.48855	.46319

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		5.0000							
Low Limit		-.01000							

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4442.7	56292.	6269.2
Stddev	8.4	214.	109.6
%RSD	.18997	.38071	1.7488

#1	4448.6	56140.	6346.7
#2	4436.7	56443.	6191.6

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05442	W 2.9277	1.0421	1.0436	2.1060	.04518	F 1.9573	234.37	.10061
Stddev	.00098	.0527	.0058	.0008	.0113	.00008	.0051	1.23	.00033
%RSD	1.7917	1.8014	.55336	.07231	.53468	.18038	.26268	.52683	.32316

#1	.05511	2.8904	1.0462	1.0430	2.0981	.04523	1.9609	233.50	.10084
#2	.05373	2.9650	1.0380	1.0441	2.1140	.04512	1.9537	235.25	.10038

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit		500.00					.10000		
Low Limit		3.2000					-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49236	W .19858	.25041	1.0496	65.185	1.1876	191.67	.51238	1.0219
Stddev	.00017	.00106	.00171	.0049	.157	.0044	.87	.00078	.0044
%RSD	.03485	.53348	.68185	.46567	.24029	.37204	.45232	.15151	.43374

#1	.49224	.19933	.24920	1.0461	65.074	1.1845	192.28	.51183	1.0251
#2	.49248	.19783	.25162	1.0530	65.296	1.1908	191.06	.51292	1.0188

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	437.34	.49137	W 11.270	.46688	F 407.77	.49572	2.0836	14.542	31.120
Stddev	1.98	.00041	.017	.00262	.90	.00327	.0044	.011	.023
%RSD	.45365	.08419	.15020	.56178	.22123	.65948	.21051	.07375	.07375

#1	435.94	.49167	11.282	.46873	408.41	.49340	2.0805	14.534	31.104
#2	438.74	.49108	11.259	.46503	407.13	.49803	2.0867	14.550	31.136

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			2.0000		200.00				
Low Limit			-1.0000		-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9211	W 6.0717	.97777	1.0353	1.7673	2.0440	.51939	.49970	.47409
Stddev	.0100	.0359	.00266	.0015	.0048	.0490	.00066	.00092	.00133
%RSD	.52142	.59170	.27253	.14318	.27405	2.3958	.12665	.18338	.28089

#1	1.9140	6.0971	.97588	1.0342	1.7638	2.0786	.51986	.49905	.47503
#2	1.9282	6.0463	.97965	1.0363	1.7707	2.0093	.51893	.50035	.47314

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		5.0000							
Low Limit		-.01000							

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4368.4	56111.	6141.0
Stddev	6.2	206.	34.7
%RSD	.14211	.36742	.56477

#1	4364.1	56256.	6165.6
#2	4372.8	55965.	6116.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00097	.00390	.00466	.01593	.00061	.00005	.00495	.06295	-.00013
Stddev	.00020	.00057	.00012	.00073	.00007	.00001	.00009	.00864	.00001
%RSD	20.527	14.717	2.6305	4.5628	11.967	11.720	1.7801	13.724	5.0604

#1	.00083	.00431	.00474	.01645	.00056	.00005	.00489	.06906	-.00012
#2	.00111	.00350	.00457	.01542	.00066	.00005	.00502	.05684	-.00013

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00004	.00023	.00044	.00089	.43230	.00778	.02698	.00017	.00012
Stddev	.00029	.00011	.00029	.00028	.01940	.00285	.00351	.00002	.00008
%RSD	661.46	47.663	65.463	31.126	4.4884	36.588	13.015	11.822	65.203

#1	-.00016	.00031	.00065	.00109	.44602	.00980	.02946	.00018	.00006
#2	.00025	.00015	.00024	.00070	.41857	.00577	.02449	.00015	.00017

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.60976	.00082	.00030	.00014	.11193	-.00318	-.00016	.00662	.01416
Stddev	.03485	.00008	.00135	.00164	.01260	.00203	.00190	.01920	.04109
%RSD	5.7152	9.5809	446.29	1186.5	11.261	63.961	1212.1	290.19	290.19

#1	.63440	.00076	-.00065	-.00102	.12084	-.00174	.00119	.02019	.04321
#2	.58512	.00088	.00126	.00130	.10302	-.00462	-.00150	-.00696	-.01489

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00124	.00142	-.00011	-.00027	.00040	-.00448	.00033	.00155	-.00192
Stddev	.00050	.00050	.00073	.00007	.00144	.00537	.00059	.00029	.00324
%RSD	40.149	34.836	656.24	27.083	357.90	119.85	177.40	18.512	168.37

#1	-.00089	.00177	-.00063	-.00032	-.00062	-.00068	-.00009	.00175	.00037
#2	-.00160	.00107	.00040	-.00022	.00142	-.00827	.00075	.00135	-.00422

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4879.3	62190.	6299.4
Stddev	17.4	52.	24.5
%RSD	.35763	.08343	.38834

#1	4866.9	62154.	6282.1
#2	4891.6	62227.	6316.7

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00091	23.235	.01049	.02747	1.3340	.00208	-.00425	51.076	.00065
Stddev	.00038	.002	.00010	.00044	.0027	.00005	.00250	.149	.00016
%RSD	42.160	.00920	.96268	1.5959	.20082	2.5042	58.665	.29238	24.202

#1	.00118	23.234	.01042	.02716	1.3321	.00204	-.00249	50.970	.00076
#2	.00064	23.237	.01056	.02778	1.3359	.00211	-.00602	51.182	.00054

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00579	.01419	.02301	20.339	8.1714	.03019	15.470	.66665	-.00243
Stddev	.00033	.00040	.00037	.101	.1480	.00227	.029	.00082	.00016
%RSD	5.6375	2.8365	1.6087	.49460	1.8116	7.5235	.19024	.12311	6.6084

#1	.00602	.01448	.02327	20.268	8.0668	.02859	15.449	.66723	-.00255
#2	.00556	.01391	.02274	20.410	8.2761	.03180	15.491	.66607	-.00232

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	19.404	.01262	.40052	.03136	7.2327	-.00662	.01161	36.914	78.996
Stddev	.398	.00006	.00009	.00118	.0351	.00324	.00096	.120	.256
%RSD	2.0534	.46047	.02302	3.7501	.48474	48.901	8.2512	.32463	.32463

#1	19.123	.01266	.40045	.03053	7.2079	-.00891	.01229	36.829	78.815
#2	19.686	.01258	.40058	.03219	7.2575	-.00433	.01094	36.999	79.177

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00211	1.3158	.02760	.20714	.00827	-.04476	.03211	.17259	.00093
Stddev	.00040	.0049	.00067	.00004	.00024	.02866	.00145	.00346	.00038
%RSD	18.875	.37231	2.4100	.01877	2.9500	64.032	4.5009	2.0028	40.549

#1	.00183	1.3123	.02713	.20711	.00810	-.02449	.03313	.17503	.00120
#2	.00239	1.3193	.02807	.20717	.00844	-.06502	.03109	.17014	.00066

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4840.3	60976.	6341.4
Stddev	3.1	278.	3.9
%RSD	.06388	.45609	.06139

#1	4838.1	60780.	6338.6
#2	4842.5	61173.	6344.1

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .01743	45.779	k .00256	k .00252	k .00090	k .00012	k .96608	k .01032	k -.00184	k .00073	k .00061
Stddev	.00009	.064	.00356	.00041	.00036	.00009	.00053	.00193	.00020	.00013	.00022
%RSD	.49645	.13892	139.17	16.327	40.114	75.260	.05525	18.694	10.723	17.977	35.397

#1	k .01749	45.734	k .00507	k .00281	k .00065	k .00019	k .96645	k .01169	k -.00198	k .00083	k .00046
#2	k .01737	45.824	k .00004	k .00223	k .00116	k .00006	k .96570	k .00896	k -.00170	k .00064	k .00076

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .00555	kF 42.710	.38334	.00713	k -.01773	k -.00117	k -.00165	265.18	k .00222	k .00694	k .00874
Stddev	.00026	.028	.04012	.00250	.00185	.00006	.00021	.14	.00009	.00077	.00112
%RSD	4.5994	.06636	10.466	35.015	10.458	4.8014	12.705	.05243	4.0252	11.128	12.857

#1	k .00537	k 42.689	.41171	.00537	k -.01904	k -.00113	k -.00179	265.28	k .00216	k .00639	k .00954
#2	k .00573	k 42.730	.35497	.00890	k -.01642	k -.00121	k -.00150	265.09	k .00229	k .00748	k .00795

Check ?	None	Chk Fail	None	None	None	None	None	Chk Pass	None	None	None
Value		50.000									
Range		-10.490%									

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k 4.7625	k -.03372	k -.01181	k -.01960	k -.04195	k -.00114	.00065	k 5.2195	k .01614	k .00134	k 10.331
Stddev	.0270	.00049	.00204	.00245	.00524	.00005	.00006	.0010	.00007	.00110	.042
%RSD	.56752	1.4435	17.280	12.488	12.488	4.5245	9.7710	.01980	.45511	82.108	.40768

#1	k 4.7434	k -.03407	k -.01037	k -.02134	k -.04566	k -.00117	.00070	k 5.2188	k .01619	k .00211	k 10.361
#2	k 4.7816	k -.03338	k -.01325	k -.01787	k -.03825	k -.00110	.00061	k 5.2202	k .01609	k .00056	k 10.301

Check ?	Chk Pass	None	None	None	None	None	None	Chk Pass	None	None	Chk Pass
Value											
Range											

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	k -.00173	k .00093	k .29471
Stddev	.00051	.00002	.00111
%RSD	29.445	1.6996	.37737

#1	k -.00208	k .00091	k .29393
#2	k -.00137	k .00094	k .29550

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4639.7	58398.	6131.0
Stddev	3.1	37.	23.2
%RSD	.06688	.06372	.37828

#1	4641.9	58372.	6114.6
#2	4637.5	58424.	6147.4

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50356	F .59257	1.0002	.49929	.50746	.45271	.00215	4.6364	.49613	.51696	.49344	.49162
Stddev	.00039	.00114	.0025	.00180	.00248	.00011	.00010	.0067	.00040	.00150	.00013	.00197
%RSD	.07837	.19194	.24672	.36116	.48829	.02429	4.5840	.14560	.08048	.29094	.02576	.40127

#1	.50328	.59338	.99848	.49802	.50921	.45263	.00208	4.6412	.49585	.51802	.49353	.49301
#2	.50384	.59177	1.0020	.50057	.50571	.45279	.00222	4.6317	.49642	.51590	.49335	.49022

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass				
Value		.50000										
Range		10.490%										

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 2.0719	F 55.409	1.0699	20.649	.51266	.49937	F 5.7520	.51826	1.0451	1.0375	.04847	.98036
Stddev	.0034	.069	.0022	.025	.00077	.00190	.0146	.00189	.0130	.0109	.00245	.00368
%RSD	.16378	.12370	.20592	.12345	.15031	.38019	.25419	.36428	1.2413	1.0477	5.0583	.37563

#1	2.0695	55.457	1.0715	20.631	.51211	.50072	5.7623	.51959	1.0542	1.0451	.05020	.98296
#2	2.0743	55.361	1.0684	20.667	.51320	.49803	5.7416	.51692	1.0359	1.0298	.04673	.97775

Check ?	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value	2.5000	50.000					5.0000					
Range	-10.490%	10.490%					10.490%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.98458	F 4.4483	F 9.5194	.98846	.49676	-.00101	.50623	1.0036	-.02701	.51307	.51330	.47992
Stddev	.00116	.0093	.0198	.00662	.00092	.00163	.00134	.0040	.02512	.00364	.00346	.00067
%RSD	.11805	.20824	.20824	.66985	.18447	160.38	.26497	.39722	92.996	.71016	.67493	.13971

#1	.98540	4.4549	9.5334	.99314	.49741	-.00217	.50528	1.0064	-.00925	.51564	.51575	.47945
#2	.98375	4.4418	9.5054	.98378	.49611	.00014	.50717	1.0007	-.04477	.51049	.51085	.48039

Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value		5.0000	10.700									
Range		-10.490%	-10.490%									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4765.2	60248.	6173.1
Stddev	8.3	70.	19.5
%RSD	.17392	.11635	.31610

#1	4759.4	60298.	6159.3
#2	4771.1	60199.	6186.9

Sample Name: CCB Acquired: 6/17/2015 2:35:00 Type: QC
 Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00094	.00087	.00251	.00009	.00033	.00013	.00542	-.00150	-.00028	.00022	.00010	-.00033	-.00151
Stddev	.00027	.00020	.00135	.00033	.00007	.00009	.00385	.00632	.00012	.00048	.00008	.00000	.00111
%RSD	28.765	22.695	53.751	375.00	21.522	70.152	71.158	421.24	42.225	214.32	72.903	1.0077	73.431

#1	.00075	.00101	.00347	-.00014	.00038	.00019	.00269	-.00597	-.00020	-.00012	.00016	-.00033	-.00072
#2	.00113	.00073	.00156	.00032	.00028	.00007	.00814	.00297	-.00037	.00056	.00005	-.00033	-.00229

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.31477	.00551	.00216	-.00002	-.00030	.25682	.00084	.00027	-.00030	.03049	-.00326	-.00232	-.01182
Stddev	.02016	.00026	.00163	.00000	.00004	.00429	.00020	.00300	.00068	.00260	.00020	.00320	.01027
%RSD	6.4042	4.6516	75.766	21.109	13.029	1.6698	23.661	1129.7	223.96	8.5211	6.0266	137.84	86.935

#1	.30051	.00569	.00100	-.00002	-.00027	.25986	.00070	-.00186	.00018	.03232	-.00340	-.00459	-.01908
#2	.32902	.00533	.00331	-.00002	-.00032	.25379	.00098	.00239	-.00078	.02865	-.00312	-.00006	-.00455

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.02529	-.00003	-.00013	.00167	.00006	.00151	-.02432	.00059	.00021	.00119
Stddev	.02198	.00038	.00005	.00042	.00013	.00093	.00446	.00025	.00014	.00098
%RSD	86.935	1428.6	42.001	25.100	198.24	61.667	18.344	43.403	66.584	82.765

#1	-.04083	-.00030	-.00017	.00138	.00016	.00085	-.02117	.00041	.00011	.00049
#2	-.00974	.00024	-.00009	.00197	-.00003	.00217	-.02748	.00077	.00030	.00189

Check ?	Chk Pass									
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4823.3	60995.	6152.6
Stddev	16.3	107.	10.5
%RSD	.33760	.17505	.17049

#1	4834.8	60919.	6160.1
#2	4811.8	61070.	6145.2

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01136	.12535	F .02196	.10348	.01054	.00101	.11282	.19343	.00488	.01079	.01050	.01565
Stddev	.00017	.00068	.00092	.00101	.00014	.00006	.00185	.00126	.00011	.00025	.00001	.00008
%RSD	1.5005	.54295	4.1687	.97401	1.3400	5.4647	1.6431	.65013	2.2465	2.3028	.11002	.54154

#1	.01124	.12487	.02261	.10420	.01063	.00105	.11413	.19254	.00496	.01096	.01051	.01559
#2	.01148	.12583	.02131	.10277	.01044	.00097	.11151	.19431	.00480	.01061	.01049	.01571

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass								
Value			.01500									
Range			30.000%									

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08217	3.8170	F .01624	.22870	.01096	.01985	F 1.4072	.04417	3.1389	.00939	.02712	F .00656
Stddev	.00011	.0415	.00079	.00254	.00013	.00030	.0103	.00006	.0034	.00190	.00197	.00030
%RSD	.13729	1.0883	4.8490	1.1095	1.2024	1.5168	.73314	.13985	.10975	20.254	7.2478	4.5658

#1	.08209	3.8463	.01568	.23050	.01106	.01964	1.4145	.04413	3.1413	.01074	.02573	.00635
#2	.08225	3.7876	.01679	.22691	.01087	.02006	1.3999	.04421	3.1365	.00805	.02851	.00677

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Fail
Value			.01000				1.0000					.01000
Range			30.000%				30.000%					-30.000%

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01601	4.3813	.93760	.10162	.01054	.01374	.00994	.01655	.07643	.01146	.02525	.01213
Stddev	.00037	.00570	.01219	.00219	.00011	.00083	.00049	.00090	.02353	.00049	.00094	.00271
%RSD	2.2953	1.3007	1.3007	2.1534	1.0454	6.0636	4.9676	5.4412	30.783	4.3092	3.7366	22.369

#1	.01575	.43410	.92897	.10317	.01062	.01433	.01029	.01718	.09307	.01181	.02592	.01405
#2	.01627	.44216	.94622	.10008	.01047	.01315	.00959	.01591	.05979	.01111	.02458	.01021

Check ?	Chk Pass											
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4870.2	60767.	6120.0
Stddev	4.1	805.	32.9
%RSD	.08403	1.3242	.53689

#1	4867.3	60198.	6143.3
#2	4873.1	61337.	6096.8

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00057	7.8641	.01150	.03472	.29257	.00056	-.00250	124.47	.00011
Stddev	.00027	.0088	.00637	.00002	.00124	.00003	.00239	.48	.00015
%RSD	47.508	.11214	55.334	.05851	.42226	5.8778	95.522	.38364	135.69

#1	.00038	7.8703	.01600	.03471	.29169	.00054	-.00081	124.14	.00000
#2	.00076	7.8578	.00700	.03473	.29344	.00059	-.00419	124.81	.00022

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00471	.00770	.01667	10.278	5.2683	.03706	52.259	.36798	-.00504
Stddev	.00006	.00007	.00002	.075	.0161	.00071	.087	.00007	.00013
%RSD	1.2814	.91602	.11031	.73168	.30486	1.9081	.16705	.01916	2.6200

#1	.00466	.00765	.01668	10.224	5.2797	.03756	52.197	.36803	-.00495
#2	.00475	.00775	.01666	10.331	5.2570	.03656	52.320	.36793	-.00513

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	181.02	.00844	.36139	.00157	91.710	-.00729	.01229	18.340	39.249
Stddev	.89	.00010	.00070	.00067	.021	.00329	.00079	.100	.215
%RSD	.49160	1.1920	.19474	42.884	.02299	45.161	6.4424	.54777	.54777

#1	180.39	.00837	.36089	.00205	91.725	-.00497	.01173	18.269	39.097
#2	181.64	.00851	.36189	.00110	91.695	-.00962	.01285	18.412	39.401

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00026	2.0475	.00436	.15373	.01097	-.02825	.01852	.04783	.00204
Stddev	.00062	.0060	.00154	.00190	.00102	.00081	.00050	.00112	.00055
%RSD	235.66	.29334	35.403	1.2365	9.3197	2.8785	2.6835	2.3470	27.158

#1	.00017	2.0433	.00545	.15239	.01025	-.02768	.01887	.04704	.00165
#2	-.00070	2.0518	.00327	.15507	.01170	-.02883	.01817	.04862	.00244

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4600.2	57884.	6114.1
Stddev	12.3	35.	.7
%RSD	.26651	.06077	.01134

#1	4608.8	57859.	6113.6
#2	4591.5	57908.	6114.5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00011	6.6218	.01028	.03509	.25499	.00047	-.00320	128.16	.00029
Stddev	.00011	.0279	.00049	.00003	.00104	.00013	.00373	.55	.00007
%RSD	101.35	.42053	4.7732	.08159	.40658	28.459	116.60	.42886	23.632

#1	.00003	6.6415	.00994	.03507	.25426	.00037	-.00583	127.77	.00034
#2	.00018	6.6021	.01063	.03511	.25572	.00056	-.00056	128.55	.00024

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00378	.00645	.01388	8.5279	5.0905	.03821	53.974	.36904	-.00499
Stddev	.00021	.00030	.00031	.0052	.0624	.00246	.011	.00069	.00011
%RSD	5.5385	4.6900	2.2207	.06078	1.2255	6.4505	.02045	.18598	2.1298

#1	.00363	.00666	.01366	8.5242	5.0464	.03996	53.966	.36856	-.00491
#2	.00392	.00624	.01410	8.5315	5.1346	.03647	53.982	.36953	-.00506

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	189.34	.00686	.32423	.00142	96.056	-.00482	.01238	16.563	35.445
Stddev	.68	.00005	.00018	.00141	.044	.00130	.00094	.071	.153
%RSD	.36100	.67597	.05652	98.897	.04602	27.052	7.5905	.43096	.43096

#1	188.86	.00690	.32410	.00043	96.088	-.00574	.01172	16.513	35.337
#2	189.82	.00683	.32435	.00242	96.025	-.00390	.01305	16.614	35.553

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00091	2.1314	.00363	.13981	.01151	.00926	.01573	.04092	.00107
Stddev	.00069	.0077	.00162	.00047	.00109	.03083	.00021	.00048	.00311
%RSD	75.471	.36237	44.610	.33913	9.4370	333.15	1.3470	1.1772	292.09

#1	-.00139	2.1260	.00249	.13948	.01227	.03106	.01558	.04126	-.00114
#2	-.00042	2.1369	.00478	.14015	.01074	-.01255	.01588	.04058	.00327

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4608.7	58060.	6151.0
Stddev	2.7	98.	27.9
%RSD	.05912	.16957	.45333

#1	4606.8	58130.	6170.7
#2	4610.6	57990.	6131.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00026	.00907	.00682	.00146	.00030	.00004	.00348	.05874	-.00040
Stddev	.00013	.00034	.00174	.00053	.00007	.00003	.00183	.00988	.00025
%RSD	50.617	3.8003	25.516	35.997	23.068	62.375	52.475	16.827	63.015

#1	.00036	.00882	.00805	.00183	.00025	.00002	.00219	.06573	-.00058
#2	.00017	.00931	.00559	.00109	.00035	.00006	.00477	.05175	-.00022

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	.00005	.00051	.00222	.49233	.00967	.01505	.00069	-.00031
Stddev	.00023	.00008	.00044	.00035	.03367	.00019	.00172	.00003	.00023
%RSD	346.07	140.50	85.528	15.933	6.8385	1.9985	11.465	4.7864	74.159

#1	-.00023	.00011	.00082	.00197	.46852	.00953	.01627	.00071	-.00015
#2	.00010	.00000	.00020	.00247	.51613	.00981	.01383	.00067	-.00047

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.45680	.00060	.00175	.00057	.04896	-.00227	-.00309	-.01505	-.03221
Stddev	.01195	.00002	.00010	.00077	.00378	.00106	.00034	.01359	.02909
%RSD	2.6153	2.5836	5.9837	134.68	7.7236	46.948	10.905	90.310	90.310

#1	.46525	.00062	.00167	.00003	.05163	-.00152	-.00285	-.02466	-.05278
#2	.44835	.00059	.00182	.00112	.04628	-.00302	-.00333	-.00544	-.01164

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00043	.00051	.00066	-.00046	.00043	-.01519	.00014	.00322	-.00088
Stddev	.00032	.00007	.00044	.00032	.00034	.00806	.00043	.00007	.00145
%RSD	73.437	14.515	65.875	69.001	79.874	53.038	304.06	2.0420	164.27

#1	-.00066	.00056	.00035	-.00068	.00067	-.00949	.00044	.00327	.00014
#2	-.00021	.00046	.00097	-.00023	.00019	-.02089	-.00016	.00318	-.00191

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4899.7	61857.	6274.5
Stddev	2.1	167.	1.7
%RSD	.04331	.26925	.02761

#1	4898.2	61739.	6275.7
#2	4901.2	61975.	6273.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00091	.34487	.00857	.01726	.11040	.00012	.00040	52.802	.00000
Stddev	.00005	.00260	.00253	.00060	.00015	.00005	.00076	.000	.0002
%RSD	5.2546	.75279	29.481	3.4523	.13605	43.821	192.18	.00025	35238.

#1	.00088	.34670	.01036	.01684	.11030	.00008	-.00014	52.802	-.00015
#2	.00094	.34303	.00679	.01768	.11051	.00015	.00093	52.802	.00015

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00011	-.00033	.00149	.26820	2.1383	.01489	14.195	.23660	-.00340
Stddev	.00020	.00006	.00010	.00366	.0559	.00252	.121	.00154	.00027
%RSD	181.15	19.592	6.9679	1.3632	2.6139	16.914	.85063	.65002	8.0717

#1	.00026	-.00028	.00157	.26562	2.0987	.01311	14.280	.23769	-.00359
#2	-.00003	-.00037	.00142	.27079	2.1778	.01667	14.109	.23551	-.00320

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	35.267	.00056	.01234	F -.00855	20.188	-.00536	.00884	5.9522	12.738
Stddev	.028	.00025	.00208	.00031	.028	.00254	.00177	.1029	.220
%RSD	.08006	44.569	16.867	3.6606	.14018	47.437	19.973	1.7280	1.7280

#1	35.247	.00073	.01087	-.00833	20.168	-.00356	.00760	5.8795	12.582
#2	35.287	.00038	.01381	-.00877	20.208	-.00716	.01009	6.0249	12.893

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass				
High Limit				200.00					
Low Limit				-.00600					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00089	.81058	.00061	.00614	.00866	-.02652	.00101	.00459	-.00025
Stddev	.00115	.00122	.00153	.00092	.00259	.01138	.00033	.00009	.00210
%RSD	129.04	.15050	250.17	14.975	29.837	42.901	32.502	2.0156	852.29

#1	-.00171	.80971	.00170	.00549	.00684	-.03456	.00078	.00465	.00124
#2	-.00008	.81144	-.00047	.00679	.01049	-.01847	.00125	.00452	-.00173

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4744.2	59902.	6233.1
Stddev	10.3	350.	12.2
%RSD	.21719	.58477	.19572

#1	4736.9	59654.	6224.5
#2	4751.4	60150.	6241.8

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .00881	45.761	k .00294	k .00172	k .00035	k .00014	k .97032	k .00680	k -.00095	k -.00007	k .00042
Stddev	.01198	.429	.00005	.00028	.00016	.00004	.01776	.00329	.00118	.00098	.00007
%RSD	135.98	.93745	1.8387	16.160	45.139	24.982	1.8304	48.399	124.38	1471.9	16.937

#1	.00034	45.458	.00298	.00192	.00024	.00017	.98288	.00913	-.00011	-.00076	.00047
#2	k .01729	46.065	k .00290	k .00152	k .00047	k .00012	k .95777	k .00447	k -.00178	k .00063	k .00037

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .00642	kF 42.459	.37593	.00828	k -.01006	k -.00157	k -.00124	265.61	k .00214	k .00785	k .00614
Stddev	.00032	.215	.02101	.00112	.01562	.00071	.00099	1.68	.00013	.00046	.00637
%RSD	4.9347	.50737	5.5881	13.479	155.32	45.391	79.835	.63173	5.9889	5.8503	103.70

#1	.00664	42.306	.36107	.00907	.00099	-.00207	-.00054	264.43	.00205	.00752	.00164
#2	k .00620	k 42.611	.39078	.00749	k -.02110	k -.00107	k -.00193	266.80	k .00223	k .00817	k .01065

Check ?	None	Chk Fail	None	None	None	None	None	Chk Pass	None	None	None
Value		50.000									
Range		-10.490%									

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	kW 4.6643	k -.01807	k -.00631	-.01745	-.03734	k -.00245	.00044	k 5.0957	k .00743	k .00130	kW 10.574
Stddev	.0219	.01914	.00554	.00055	.00117	.00476	.00009	.2032	.01303	.00135	.033
%RSD	.47005	105.93	87.814	3.1440	3.1440	194.58	20.466	3.9888	175.42	103.82	.31269

#1	4.6798	-.00454	-.00239	-.01706	-.03651	-.00581	.00050	4.9520	-.00179	.00035	10.597
#2	k 4.6488	k -.03161	k -.01022	-.01784	-.03817	k .00092	.00038	k 5.2394	k .01664	k .00225	k 10.550

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value	5.0000										10.000
Range	-5.0000%										5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	k .00084	k .00082	k .14514
Stddev	.00371	.00129	.21059
%RSD	443.46	157.07	145.10

#1	.00346	.00174	-.00377
#2	k -.00179	k -.00009	k .29405

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4700.7	58788.	6129.1
Stddev	12.5	62.	5.8
%RSD	.26687	.10529	.09439

#1	4691.9	58744.	6133.2
#2	4709.6	58832.	6125.0

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50982	F .59266	.99179	.49772	.50792	.45258	.00173	4.6041	.49605	.50841	.49165	.49660
Stddev	.00077	.00071	.00456	.00003	.00253	.00131	.00121	.0741	.00111	.00142	.00075	.00180
%RSD	.15121	.12038	.45963	.00606	.49769	.28911	69.856	1.6084	.22332	.28026	.15252	.36313

#1	.50928	.59215	.98856	.49770	.50971	.45350	.00088	4.6564	.49683	.50741	.49112	.49533
#2	.51037	.59316	.99501	.49774	.50613	.45165	.00259	4.5517	.49526	.50942	.49218	.49788

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass				
Value		.50000										
Range		10.490%										

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 2.0606	F 55.878	1.0722	20.996	.51941	.49997	F 5.7078	.52167	1.0471	1.0442	.03417	.98421
Stddev	.0185	.165	.0060	.012	.00022	.00063	.0213	.00170	.0031	.0068	.00293	.00657
%RSD	.89953	.29568	.56171	.05760	.04215	.12689	.37305	.32492	.29705	.65010	8.5735	.66777

#1	2.0737	55.995	1.0764	20.987	.51925	.49952	5.7229	.52048	1.0449	1.0394	.03624	.97956
#2	2.0475	55.761	1.0679	21.004	.51956	.50041	5.6928	.52287	1.0493	1.0490	.03210	.98885

Check ?	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value	2.5000	50.000					5.0000					
Range	-10.490%	10.490%					10.490%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.97956	F 4.3835	F 9.3806	.98756	.49737	.00075	.51180	1.0009	-.01574	.52406	.52260	.47181
Stddev	.00273	.0974	.2083	.01095	.00192	.00110	.00080	.0079	.00162	.00117	.00066	.00166
%RSD	.27864	2.2210	2.2210	1.1084	.38510	147.28	.15697	.78897	10.300	.22351	.12654	.35247

#1	.97763	4.4523	9.5279	.97982	.49872	.00152	.51123	.99530	-.01459	.52323	.52307	.47299
#2	.98149	4.3146	9.2333	.99530	.49602	-.00003	.51237	1.0065	-.01688	.52489	.52214	.47064

Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value		5.0000	10.700									
Range		-10.490%	-10.490%									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4812.8	60251.	6215.1
Stddev	6.5	21.	2.4
%RSD	.13606	.03444	.03929

#1	4817.5	60236.	6213.4
#2	4808.2	60266.	6216.8

Sample Name: CCB Acquired: 6/17/2015 2:55:07 Type: QC
 Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00023	.00070	.00361	-.00036	.00030	.00009	.00624	-.00358	-.00015	.00008	-.00002	-.00023	-.00208
Stddev	.00020	.00034	.00167	.00051	.00026	.00004	.00257	.00482	.00013	.00009	.00002	.00001	.00153
%RSD	87.262	49.398	46.282	140.34	85.190	48.298	41.259	134.86	84.036	111.68	95.076	4.8589	73.600

#1	.00009	.00094	.00479	-.00072	.00012	.00012	.00442	-.00698	-.00024	.00015	-.00001	-.00024	-.00317
#2	.00037	.00045	.00243	.00000	.00048	.00006	.00806	-.00017	-.00006	.00002	-.00003	-.00022	-.00100

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.29500	.00544	.00129	.00003	-.00013	.22809	.00024	.00030	-.00063	.02013	-.00263	.00045	.00247
Stddev	.04026	.00342	.00086	.00004	.00001	.01912	.00037	.00069	.00009	.00107	.00117	.00182	.02146
%RSD	13.648	62.943	66.479	123.62	8.7055	8.3825	157.85	233.16	14.613	5.3179	44.244	407.70	869.41

#1	.32347	.00786	.00069	.00006	-.00012	.24161	.00050	.00079	-.00070	.01937	-.00181	-.00084	.01765
#2	.26653	.00302	.00190	.00000	-.00014	.21457	-.00003	-.00019	-.00057	.02088	-.00346	.00173	-.01271

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00528	-.00097	.00001	.00001	-.00044	-.00011	.01476	.00113	.00049	.00008
Stddev	.04593	.00023	.00017	.00294	.00008	.00047	.01099	.00042	.00010	.00032
%RSD	869.41	23.394	1828.0	25061.	17.226	429.80	74.450	36.915	20.220	416.93

#1	.03776	-.00113	-.00011	.00209	-.00050	.00022	.00699	.00143	.00042	-.00015
#2	-.02720	-.00081	.00013	-.00206	-.00039	-.00044	.02252	.00084	.00056	.00030

Check ?	Chk Pass									
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4931.4	61883.	6280.6
Stddev	17.7	39.	1.7
%RSD	.35925	.06275	.02758

#1	4943.9	61911.	6281.8
#2	4918.8	61856.	6279.3

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01141	.12665	F .01965	.10419	.01037	.00101	.11543	.18964	.00520	.01102	.01060	.01524
Stddev	.00045	.00031	.00153	.00050	.00053	.00002	.00267	.01033	.00022	.00010	.00012	.00005
%RSD	3.9495	.24613	7.7725	.47711	5.1268	2.3853	2.3142	5.4497	4.1793	.87920	1.1111	.32516

#1	.01172	.12687	.01857	.10454	.00999	.00103	.11732	.19695	.00535	.01095	.01069	.01521
#2	.01109	.12643	.02073	.10384	.01074	.00099	.11354	.18233	.00504	.01109	.01052	.01528

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass								
Value			.01500									
Range			30.000%									

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08619	3.8557	F .01766	.23174	.01107	.01980	F 1.3829	.04499	3.2255	.00931	.02055	F .00659
Stddev	.00244	.0462	.00166	.00134	.00005	.00022	.0110	.00105	.0266	.00021	.00214	.00081
%RSD	2.8307	1.1987	9.3906	.57984	.44946	1.0899	.79177	2.3261	.82407	2.2711	10.390	12.255

#1	.08447	3.8230	.01649	.23079	.01110	.01995	1.3752	.04573	3.2443	.00946	.02207	.00716
#2	.08792	3.8884	.01883	.23269	.01103	.01965	1.3906	.04425	3.2067	.00916	.01904	.00602

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Fail
Value			.01000				1.0000					.01000
Range			30.000%				30.000%					-30.000%

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01478	.46449	.99401	.10190	.01064	.01444	.00986	.01743	.06593	.01111	.02426	.01207
Stddev	.00153	.00211	.00451	.00089	.00012	.00242	.00061	.00059	.06053	.00017	.00061	.00078
%RSD	10.385	.45404	.45404	.87317	1.1383	16.724	6.1649	3.3617	91.818	1.5325	2.5031	6.4973

#1	.01586	.46300	.99081	.10253	.01056	.01615	.00943	.01701	.02312	.01123	.02383	.01263
#2	.01369	.46598	.99720	.10127	.01073	.01273	.01029	.01784	.10873	.01099	.02469	.01152

Check ?	Chk Pass											
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4926.2	61974.	6273.6
Stddev	9.1	245.	4.2
%RSD	.18504	.39499	.06697

#1	4919.7	61801.	6270.6
#2	4932.6	62147.	6276.5

Sample Name: lb2 280-281228/1-b Acquired: 6/17/2015 3:00:05 Type: Unk

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: 6/12 Custom ID2: Custom ID3:

Comment: 281512 6010B TCLP

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00070	.00335	.00659	.00000	.00031	.00001	.00135	.00980	-.00016
Stddev	.00026	.00030	.00204	.00073	.00022	.00002	.00116	.00157	.00000
%RSD	36.766	9.0023	30.931	162620.	70.713	172.90	85.597	16.006	2.6059

#1	.00088	.00357	.00515	-.00052	.00047	.00000	.00217	.01091	-.00015
#2	.00052	.00314	.00803	.00052	.00016	.00003	.00053	.00869	-.00016

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00009	-.00004	-.00039	-.00198	.25176	W .00628	.00768	.00057	-.00033
Stddev	.00024	.00003	.00016	.00379	.00458	.00141	.00005	.00006	.00009
%RSD	264.69	67.328	41.298	191.27	1.8198	22.414	.58843	10.175	27.158

#1	.00026	-.00006	-.00050	-.00466	.25500	.00728	.00765	.00053	-.00040
#2	-.00008	-.00002	-.00028	.00070	.24852	.00529	.00771	.00061	-.00027

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						.00500			
Low Limit						-.00500			

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.19864	.00005	.00242	.00039	.01935	-.00157	-.00185	.01043	.02232
Stddev	.01318	.00038	.00142	.00047	.00002	.00080	.00083	.01993	.04266
%RSD	6.6330	770.23	58.607	122.75	.11439	50.905	44.820	191.14	191.14

#1	.18932	.00032	.00142	.00005	.01933	-.00214	-.00244	.02452	.05248
#2	.20796	-.00022	.00343	.00072	.01937	-.00101	-.00127	-.00367	-.00785

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00011	.00001	-.00019	-.00060	.00055	-.01188	.00127	.00168	-.00115
Stddev	.00005	.00000	.00053	.00011	.00032	.00870	.00022	.00028	.00187
%RSD	44.441	2.3623	277.42	18.362	58.692	73.239	17.524	16.585	161.84

#1	-.00014	.00001	-.00057	-.00052	.00078	-.01803	.00111	.00149	.00017
#2	-.00007	.00001	.00018	-.00067	.00032	-.00573	.00142	.00188	-.00248

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4986.6	62762.	6419.3
Stddev	13.1	264.	26.4
%RSD	.26228	.42007	.41080

#1	4995.8	62575.	6437.9
#2	4977.3	62948.	6400.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.21304	F .46421	.75418	.20234	2.3595	.00877	.39681	F 8.8136	.21476
Stddev	.00173	.00097	.00386	.00025	.0093	.00012	.00029	.0161	.00270
%RSD	.81100	.20992	.51134	.12597	.39398	1.3740	.07316	.18251	1.2550

#1	.21426	.46352	.75145	.20252	2.3661	.00885	.39660	8.8250	.21285
#2	.21181	.46490	.75690	.20216	2.3529	.00868	.39701	8.8023	.21667

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Fail	Chk Pass
High Limit		.43200						11.000	
Low Limit		.34400						8.9000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09927	F .98802	.44425	F .16325	10.870	.21796	10.064	.10111	.19542
Stddev	.00001	.00138	.00124	.00105	.014	.00364	.018	.00016	.00033
%RSD	.00661	.13945	.27809	.64206	.12736	1.6707	.17965	.15521	.16916

#1	.09927	.98899	.44512	.16251	10.880	.22053	10.077	.10100	.19519
#2	.09927	.98705	.44337	.16399	10.860	.21538	10.052	.10122	.19566

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Pass				
High Limit		.25200		.22800					
Low Limit		.16800		.17600					

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.926	.09939	2.0186	1.1087	.37324	.09198	.58123	F 1.6856	F 3.6072
Stddev	.120	.00027	.0006	.0021	.00250	.00173	.00285	.0339	.0725
%RSD	1.0981	.26968	.03215	.18483	.66961	1.8834	.49018	2.0105	2.0105

#1	11.010	.09920	2.0182	1.1073	.37147	.09075	.58325	1.7096	3.6585
#2	10.841	.09958	2.0191	1.1102	.37501	.09320	.57922	1.6616	3.5559

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Fail	Chk Fail
High Limit								2.3000	4.9220
Low Limit								1.8800	4.0200

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.38565	.19177	.18708	.19636	.39639	.38260	.09898	.49137	.09105
Stddev	.00028	.00060	.00001	.00020	.00326	.00215	.00015	.00110	.00341
%RSD	.07171	.31247	.00800	.10246	.82204	.56317	.14971	.22474	3.7415

#1	.38545	.19219	.18707	.19622	.39408	.38412	.09908	.49215	.09346
#2	.38585	.19134	.18709	.19651	.39869	.38107	.09887	.49059	.08864

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4931.0	62180.	6448.0
Stddev	7.9	180.	33.3
%RSD	.15965	.28906	.51589

#1	4925.5	62053.	6424.5
#2	4936.6	62307.	6471.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00067	.00769	.01294	.01055	.07225	-.00014	-.00372	W 599.30	-.00099
Stddev	.00067	.00025	.00151	.00045	.00018	.00003	.00149	3.18	.00012
%RSD	99.729	3.2177	11.676	4.2220	.24923	20.480	40.069	.53071	11.998

#1	.00114	.00786	.01187	.01024	.07213	-.00012	-.00267	597.05	-.00090
#2	.00020	.00751	.01401	.01087	.07238	-.00016	-.00478	601.55	-.00107

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								500.00	
Low Limit								-.05000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00015	-.00081	.00374	.00137	11.255	.03122	.01837	.00058	.03240
Stddev	.00034	.00027	.00003	.00158	.011	.00127	.00342	.00006	.00051
%RSD	220.26	33.366	.68452	115.35	.09978	4.0592	18.611	9.6719	1.5792

#1	-.00039	-.00101	.00375	.00025	11.263	.03033	.02079	.00062	.03276
#2	.00009	-.00062	.00372	.00249	11.247	.03212	.01595	.00054	.03204

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.803	.00011	.00425	-.00212	92.682	.00132	.08832	.26521	.56756
Stddev	.242	.00011	.00062	.00026	.028	.00057	.00255	.01708	.03654
%RSD	2.0489	98.214	14.679	12.079	.03042	42.961	2.8851	6.4388	6.4388

#1	11.632	.00003	.00469	-.00230	92.662	.00172	.09013	.25314	.54172
#2	11.974	.00018	.00381	-.00194	92.702	.00092	.08652	.27729	.59340

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00080	.64119	.00091	-.00102	.01457	-.04075	.00808	.00633	-.00068
Stddev	.00053	.00172	.00152	.00038	.00004	.02119	.00015	.00004	.00092
%RSD	66.037	.26828	168.08	36.945	.24187	51.997	1.8450	.66136	135.12

#1	-.00117	.63998	-.00017	-.00129	.01460	-.02577	.00818	.00635	-.00003
#2	-.00043	.64241	.00199	-.00076	.01455	-.05573	.00797	.00630	-.00134

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4477.0	56863.	6193.1
Stddev	.1	373.	22.3
%RSD	.00147	.65633	.36001

#1	4476.9	56599.	6208.9
#2	4477.0	57127.	6177.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00060	.00017	.01464	.00179	.01421	.00002	.00226	122.69	-.00072
Stddev	.00027	.00003	.00071	.00014	.00016	.00009	.00151	.07	.00021
%RSD	45.511	19.565	4.8343	7.6664	1.1385	514.77	66.790	.05454	28.894

#1	.00079	.00015	.01414	.00170	.01410	.00008	.00333	122.74	-.00058
#2	.00040	.00020	.01514	.00189	.01433	-.00005	.00119	122.65	-.00087

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00004	-.00061	.00046	-.00008	2.4195	.01106	.00673	.00012	.00197
Stddev	.00049	.00005	.00088	.00096	.0191	.00156	.00176	.00001	.00037
%RSD	1178.1	7.4410	192.51	1208.3	.78766	14.107	26.139	9.3023	18.903

#1	-.00030	-.00058	-.00017	-.00076	2.4060	.01216	.00797	.00013	.00171
#2	.00038	-.00065	.00108	.00060	2.4330	.00995	.00548	.00011	.00223

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.4618	.00002	-.00021	F -.00892	18.004	-.00675	.02300	.06026	.12895
Stddev	.0089	.00017	.00199	.00014	.089	.00116	.00131	.01063	.02274
%RSD	.36176	741.33	964.48	1.6157	.49672	17.119	5.7109	17.637	17.637

#1	2.4681	.00014	-.00161	-.00902	18.067	-.00594	.02207	.05274	.11287
#2	2.4555	-.00010	.00120	-.00882	17.941	-.00757	.02392	.06777	.14503

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass				
High Limit				200.00					
Low Limit				-.00600					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00017	.12707	.00102	-.00086	.01175	-.01325	.00213	.00193	-.00308
Stddev	.00000	.00042	.00066	.00010	.00050	.02125	.00027	.00016	.00033
%RSD	.36253	.33025	64.917	11.364	4.2341	160.36	12.818	8.1575	10.776

#1	-.00017	.12737	.00055	-.00079	.01140	-.02828	.00232	.00182	-.00332
#2	-.00017	.12678	.00149	-.00093	.01210	.00178	.00194	.00204	-.00285

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4768.1	60414.	6339.5
Stddev	7.8	117.	28.4
%RSD	.16286	.19284	.44871

#1	4773.6	60496.	6319.4
#2	4762.6	60331.	6359.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 22816	46160	85044	21721	26226	00907	F 40178	W 596.33	23581
Stddev	.00018	.00093	.00019	.00029	.0164	.00001	.00395	10.10	.00096
%RSD	.07865	.20178	.02219	.13309	.62469	.07363	.98359	1.6942	.40865

#1	.22829	.46094	.85057	.21701	2.6110	.00906	.40457	589.19	.23512
#2	.22804	.46226	.85031	.21742	2.6342	.00907	.39899	603.48	.23649

Check ?	Chk Warn	Chk Pass	Chk Fail	Chk Warn	Chk Pass				
High Limit	.10000						.10000	500.00	
Low Limit	-.01000						-.10000	-.05000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10140	F 1.0405	46772	17214	23.003	26205	10.019	10568	24210
Stddev	.00036	.0011	.00030	.00231	.153	.00374	.023	.00002	.00090
%RSD	.35854	.10632	.06308	1.3448	.66452	1.4267	.22752	.01933	.37304

#1	.10114	1.0397	.46793	.17051	22.895	.25940	10.003	.10567	.24146
#2	.10165	1.0413	.46751	.17378	23.111	.26469	10.035	.10570	.24274

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		1.0000							
Low Limit		-.02000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.702	10159	W 2.2497	1.1151	90.681	10401	71524	1.9238	4.1169
Stddev	.372	.00013	.0003	.0009	.186	.00166	.00688	.0148	.0318
%RSD	1.6380	.13239	.01166	.08154	.20545	1.6002	.96121	.77137	.77137

#1	22.439	.10168	2.2499	1.1157	90.549	.10283	.71038	1.9133	4.0945
#2	22.965	.10149	2.2495	1.1144	90.813	.10519	.72011	1.9343	4.1394

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	39758	83234	20196	21032	38704	38731	11409	51680	09632
Stddev	.00145	.00429	.00266	.00057	.00035	.00275	.00039	.00149	.00004
%RSD	.36422	.51573	1.3159	.26876	.08975	.71003	.34405	.28830	.03816

#1	.39655	.82930	.20008	.21072	.38680	.38926	.11381	.51575	.09629
#2	.39860	.83537	.20384	.20992	.38729	.38537	.11437	.51786	.09635

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4472.6	56859.	6200.7
Stddev	8.7	129.	35.2
%RSD	.19380	.22682	.56775

#1	4478.7	56950.	6225.6
#2	4466.4	56768.	6175.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 21440	43249	79707	20307	24247	00855	F 37346	W 558.67	22014
Stddev	.00009	.00068	.00464	.00029	.0001	.00007	.00070	1.10	.00012
%RSD	.04252	.15665	.58219	.14477	.00341	.80094	.18757	.19739	.05661

#1	.21446	.43201	.80035	.20328	2.4248	.00850	.37296	557.89	.22005
#2	.21434	.43297	.79379	.20286	2.4247	.00859	.37395	559.45	.22023

Check ?	Chk Warn	Chk Pass	Chk Fail	Chk Warn	Chk Pass				
High Limit	.10000						.10000	500.00	
Low Limit	-.01000						-.10000	-.05000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	09480	W 96885	43635	15404	21.608	24833	9.4585	09912	22513
Stddev	.00007	.00061	.00067	.00150	.004	.00221	.0392	.00032	.00036
%RSD	.07105	.06341	.15300	.97100	.01933	.89128	.41447	.32617	.16026

#1	.09485	.96841	.43682	.15509	21.605	.24990	9.4308	.09889	.22538
#2	.09475	.96928	.43588	.15298	21.610	.24677	9.4863	.09935	.22487

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	21.428	09546	W 2.0991	1.0433	84.244	09729	66336	1.8045	3.8617
Stddev	.141	.00068	.0040	.0034	.184	.00024	.00049	.0174	.0372
%RSD	.65791	.71534	.19295	.32219	.21837	.24334	.07401	.96410	.96410

#1	21.528	.09497	2.1019	1.0457	84.374	.09712	.66301	1.7922	3.8354
#2	21.329	.09594	2.0962	1.0409	84.114	.09745	.66371	1.8168	3.8880

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	36798	77223	18782	19703	36408	39450	10587	48375	09003
Stddev	.00044	.00034	.00054	.00012	.00065	.00799	.00012	.00328	.00141
%RSD	.11853	.04385	.28807	.06290	.17886	2.0258	.11564	.67830	1.5673

#1	.36767	.77199	.18820	.19694	.36454	.38885	.10596	.48143	.09103
#2	.36829	.77247	.18744	.19712	.36362	.40015	.10578	.48607	.08903

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4493.7	57198.	6223.7
Stddev	11.4	117.	21.1
%RSD	.25411	.20518	.33954

#1	4501.8	57281.	6238.7
#2	4485.6	57115.	6208.8

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00123	45.281	.00436	.00168	.00131	.00014	.97319	.12269	-.00003	-.00119	.00086
Stddev	.00008	.207	.00887	.00035	.00013	.00006	.00305	.01811	.00004	.00035	.00037
%RSD	6.3754	.45812	203.38	20.733	9.9587	42.032	.31388	14.762	155.87	29.868	43.258

#1	.00128	45.134	.01063	.00143	.00140	.00018	.97103	.13549	-.00006	-.00144	.00112
#2	.00117	45.427	-.00191	.00193	.00122	.00010	.97535	.10988	.00000	-.00094	.00059

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00563	F 39.567	.44719	.00691	.00519	-.00222	-.00037	263.79	.00163	.00689	-.00041
Stddev	.00044	.115	.07854	.00250	.00205	.00001	.00047	.67	.00019	.00453	.00241
%RSD	7.8374	.29047	17.562	36.194	39.439	.32370	127.42	.25372	11.351	65.678	586.84

#1	.00594	39.486	.39166	.00514	.00374	-.00222	-.00071	264.27	.00176	.00369	-.00212
#2	.00532	39.648	.50272	.00868	.00663	-.00223	-.00004	263.32	.00150	.01009	.00129

Check ?	None	Chk Fail	None	None	None	None	None	Chk Pass	None	None	None
Value		50.000									
Range		-10.490%									

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4.6400	-.00329	-.00500	-.03278	-.07015	-.00753	.00037	4.9208	-.00134	.00183	10.452
Stddev	.0194	.00250	.00393	.01111	.02378	.00059	.00003	.0013	.00006	.00243	.030
%RSD	.41908	76.021	78.702	33.899	33.899	7.8684	8.2432	.02722	4.4308	132.90	.29113

#1	4.6262	-.00152	-.00222	-.04064	-.08696	-.00711	.00040	4.9218	-.00130	.00355	10.431
#2	4.6537	-.00506	-.00778	-.02492	-.05333	-.00795	.00035	4.9199	-.00138	.00011	10.474

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Pass
Value	5.0000										
Range	-5.0000%										

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00338	.00059	-.00428
Stddev	.00042	.00012	.00312
%RSD	12.370	20.855	73.039

#1	.00308	.00068	-.00648
#2	.00368	.00050	-.00207

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4641.1	58554.	6106.8
Stddev	9.1	82.	5.0
%RSD	.19699	.13976	.08193

#1	4647.6	58612.	6103.2
#2	4634.7	58496.	6110.3

Sample Name: CCV-3333645 Acquired: 6/17/2015 3:17:52 Type: QC

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50002	F .58265	.98196	.49386	.49858	F .44361	-.00049	4.5592	.49170	.50466	.48413	.48884
Stddev	.00179	.00064	.00239	.00206	.00365	.00366	.00051	.0371	.00088	.00571	.00056	.00073
%RSD	.35702	.11040	.24311	.41709	.73283	.82537	103.88	.81368	.17913	1.1311	.11489	.14913

#1	.50129	.58310	.98365	.49241	.49600	.44102	-.00085	4.5329	.49108	.50062	.48453	.48935
#2	.49876	.58219	.98028	.49532	.50117	.44620	-.00013	4.5854	.49232	.50869	.48374	.48832

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		.50000				.50000						
Range		10.490%				-10.490%						

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 2.0166	54.918	1.0556	20.396	.50770	.49020	F 5.5759	.51195	1.0361	1.0268	.02824	.97551
Stddev	.0153	.329	.0025	.040	.00018	.00307	.0245	.00220	.0106	.0102	.00092	.00545
%RSD	.75605	.59952	.23563	.19680	.03522	.62536	.43896	.42945	1.0238	.99367	3.2610	.55911

#1	2.0058	54.685	1.0539	20.425	.50782	.49237	5.5586	.51351	1.0436	1.0340	.02889	.97937
#2	2.0274	55.151	1.0574	20.368	.50757	.48804	5.5932	.51040	1.0286	1.0196	.02759	.97166

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass				
Value	2.5000						5.0000					
Range	-10.490%						10.490%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.97421	F 4.3412	F 9.2901	.96951	.48776	-.00203	.50060	.98883	-.01499	.50798	.50847	.47135
Stddev	.01060	.0734	.1571	.01049	.00335	.00008	.00025	.00900	.00610	.00692	.00182	.00751
%RSD	1.0877	1.6906	1.6906	1.0825	.68648	3.8452	.04986	.91063	40.688	1.3627	.35741	1.5932

#1	.98170	4.2893	9.1791	.97693	.48539	-.00209	.50042	.99520	-.01930	.51288	.50975	.46604
#2	.96672	4.3931	9.4012	.96209	.49013	-.00198	.50077	.98247	-.01067	.50309	.50718	.47666

Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value		5.0000	10.700									
Range		-10.490%	-10.490%									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4791.7	60271.	6141.4
Stddev	3.1	247.	5.1
%RSD	.06381	.41040	.08362

#1	4793.8	60096.	6145.1
#2	4789.5	60446.	6137.8

Sample Name: CCB Acquired: 6/17/2015 3:20:17 Type: QC
 Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00009	.00058	.00489	.00005	.00031	.00013	.00457	.00560	-.00020	.00001	.00006	-.00016	-.00227
Stddev	.00022	.00030	.00178	.00001	.00041	.00015	.00030	.00304	.00000	.00011	.00001	.00006	.00044
%RSD	258.04	51.298	36.318	20.676	133.76	108.35	6.5058	54.331	1.0257	843.98	26.014	36.050	19.517

#1	.00024	.00079	.00364	.00004	.00002	.00024	.00436	.00775	-.00019	.00009	.00005	-.00012	-.00258
#2	-.00007	.00037	.00615	.00006	.00060	.00003	.00478	.00345	-.00020	-.00006	.00007	-.00020	-.00196

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.31220	.00661	.00442	.00006	-.00032	.17515	.00050	-.00044	.00055	.01825	-.00181	-.00111	-.00029
Stddev	.05793	.00128	.00554	.00004	.00020	.00107	.00017	.00107	.00123	.00125	.00082	.00286	.01189
%RSD	18.555	19.354	125.33	66.527	63.000	.61118	33.384	242.08	222.14	6.8359	45.306	257.37	4120.0

#1	.27124	.00751	.00833	.00003	-.00018	.17439	.00038	.00032	-.00032	.01737	-.00238	-.00314	-.00870
#2	.35316	.00570	.00050	.00008	-.00047	.17590	.00061	-.00120	.00142	.01913	-.00123	.00091	.00812

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00062	-.00028	.00005	.00200	-.00101	.00163	-.04658	.00037	.00051	-.00093
Stddev	.02545	.00061	.00006	.00032	.00067	.00060	.01247	.00010	.00005	.00103
%RSD	4120.0	214.72	113.77	16.167	66.921	36.642	26.776	26.978	10.023	110.99

#1	-.01861	.00015	.00009	.00178	-.00148	.00121	-.05540	.00030	.00055	-.00165
#2	.01738	-.00071	.00001	.00223	-.00053	.00206	-.03776	.00044	.00048	-.00020

Check ?	Chk Pass									
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4895.6	61657.	6185.8
Stddev	5.2	37.	7.5
%RSD	.10668	.05924	.12114

#1	4899.3	61631.	6180.5
#2	4891.9	61682.	6191.1

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01207	.12410	F .02019	.10352	.01058	.00094	.11335	.19126	.00499	.01095	.01026	.01562
Stddev	.00050	.00187	.00145	.00118	.00025	.00010	.00211	.00018	.00022	.00017	.00001	.00003
%RSD	4.1691	1.5061	7.1584	1.1379	2.3483	10.245	1.8579	.09567	4.4130	1.5083	.07876	.18921

#1	.01242	.12542	.02121	.10435	.01041	.00101	.11186	.19113	.00515	.01107	.01027	.01564
#2	.01171	.12278	.01917	.10269	.01076	.00087	.11484	.19139	.00483	.01083	.01026	.01559

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass								
Value			.01500									
Range			30.000%									

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08200	3.8066	F .01615	.23125	.01102	.01952	1.2757	.04409	3.1585	.00876	.01681	.00717
Stddev	.00048	.0034	.00157	.00383	.00001	.00010	.0055	.00031	.0146	.00086	.00169	.00036
%RSD	.58630	.08869	9.7188	1.6578	.04701	.50619	.42906	.70183	.46258	9.8466	10.078	4.9837

#1	.08166	3.8042	.01726	.22854	.01102	.01945	1.2795	.04387	3.1688	.00815	.01801	.00743
#2	.08234	3.8090	.01504	.23396	.01102	.01959	1.2718	.04431	3.1482	.00937	.01562	.00692

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass						
Value			.01000									
Range			30.000%									

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01525	.42779	.91546	.10033	.01042	.01634	.01045	.01651	.05118	.01133	.02426	.01324
Stddev	.00171	.01316	.02816	.00056	.00010	.00283	.00000	.00005	.00168	.00013	.00072	.00215
%RSD	11.212	3.0758	3.0758	.56074	.99411	17.319	.02548	.30555	3.2872	1.1482	2.9809	16.250

#1	.01646	.43709	.93537	.10073	.01049	.01834	.01045	.01648	.04999	.01123	.02477	.01172
#2	.01404	.41848	.89555	.09993	.01034	.01434	.01045	.01655	.05237	.01142	.02375	.01476

Check ?	Chk Pass											
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4891.1	61038.	6128.5
Stddev	24.2	367.	7.9
%RSD	.49479	.60187	.12921

#1	4874.0	61298.	6134.1
#2	4908.2	60778.	6122.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00061	.00358	.00601	.00020	.00023	.00005	.00323	.00329	-.00018
Stddev	.00007	.00007	.00062	.00039	.00000	.00012	.00017	.00045	.00008
%RSD	11.869	1.9931	10.373	194.54	1.3271	240.15	5.3971	13.655	44.284

#1	.00056	.00353	.00557	.00047	.00024	.00014	.00336	.00361	-.00024
#2	.00066	.00363	.00645	-.00007	.00023	-.00004	.00311	.00297	-.00013

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	.00012	-.00059	.02199	.31776	W .00616	.00031	.00019	-.00051
Stddev	.00008	.00015	.00001	.00146	.04154	.00324	.00436	.00002	.00005
%RSD	97.174	129.22	2.0237	6.6222	13.071	52.620	1397.9	8.6462	9.1612

#1	-.00002	.00001	-.00058	.02302	.34713	.00845	.00339	.00020	-.00048
#2	-.00013	.00022	-.00059	.02096	.28839	.00387	-.00277	.00018	-.00055

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						.00500			
Low Limit						-.00500			

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.15168	.00013	.00153	-.00156	.01881	-.00259	-.00033	-.01211	-.02592
Stddev	.00318	.00016	.00128	.00196	.00057	.00101	.00410	.00527	.01128
%RSD	2.0987	124.79	83.622	125.90	3.0402	39.165	1246.1	43.524	43.524

#1	.15393	.00024	.00063	-.00295	.01840	-.00330	-.00323	-.00838	-.01794
#2	.14942	.00001	.00244	-.00017	.01921	-.00187	.00257	-.01584	-.03389

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00015	-.00001	.00028	-.00081	.00014	-.01316	.00019	.00082	-.00392
Stddev	.00028	.00007	.00079	.00047	.00201	.01435	.00005	.00081	.00293
%RSD	192.23	803.02	285.45	58.109	1454.7	108.98	26.525	98.467	74.891

#1	.00035	-.00006	.00083	-.00114	-.00128	-.00302	.00023	.00140	-.00599
#2	-.00005	.00004	-.00028	-.00048	.00156	-.02331	.00016	.00025	-.00184

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4907.3	62230.	6261.2
Stddev	6.2	88.	3.9
%RSD	.12616	.14213	.06153

#1	4911.7	62293.	6258.5
#2	4902.9	62168.	6264.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05482	W 2.2291	.98957	1.0261	2.0469	.04591	1.9904	45.361	.09994
Stddev	.00013	.0002	.00789	.0101	.0059	.00016	.0087	.123	.00052
%RSD	.23396	.00879	.79781	.98241	.28599	.35153	.43500	.27146	.52496

#1	.05473	2.2292	.98399	1.0190	2.0510	.04602	1.9842	45.448	.09957
#2	.05491	2.2289	.99516	1.0332	2.0428	.04579	1.9965	45.274	.10031

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
High Limit		2.2250							
Low Limit		1.7500							

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50775	F .19876	.25362	F .82418	56.927	1.0898	52.397	.51956	1.0115
Stddev	.00320	.00089	.00048	.00225	.040	.0039	.294	.00530	.0012
%RSD	.62934	.44624	.19022	.27271	.07069	.35495	.56082	1.0210	.11862

#1	.50549	.19814	.25396	.82576	56.899	1.0925	52.189	.51581	1.0107
#2	.51001	.19939	.25327	.82259	56.956	1.0870	52.604	.52331	1.0124

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Pass				
High Limit		.05750		1.1500					
Low Limit		.04275		.89000					

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	55.854	.50840	10.609	.50054	1.8663	.49235	1.9816	F 8.8395	18.917
Stddev	.303	.00333	.066	.00487	.0036	.00196	.0122	.0025	.005
%RSD	.54312	.65549	.62338	.97207	.19376	.39733	.61664	.02853	.02853

#1	56.069	.50604	10.563	.49710	1.8637	.49097	1.9729	8.8413	18.920
#2	55.640	.51075	10.656	.50398	1.8688	.49373	1.9902	8.8377	18.913

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Fail	None
High Limit								11.000	
Low Limit								9.0000	

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9459	1.0028	.99066	1.0357	1.9263	2.0875	.52424	.51081	.47533
Stddev	.0156	.0036	.00971	.0087	.0218	.0058	.00530	.00581	.00074
%RSD	.80005	.35402	.97983	.84424	1.1320	.27940	1.0106	1.1376	.15666

#1	1.9349	1.0053	.98380	1.0295	1.9109	2.0916	.52050	.50670	.47480
#2	1.9569	1.0003	.99752	1.0419	1.9417	2.0833	.52799	.51492	.47585

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4694.8	58959.	6138.8
Stddev	4.1	500.	57.5
%RSD	.08797	.84754	.93623

#1	4691.9	59312.	6098.2
#2	4697.8	58606.	6179.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05443	F 2.2574	1.0051	1.0432	2.0566	.04623	2.0133	45.564	.10117
Stddev	.00036	.0001	.0037	.0003	.0110	.00073	.0081	.211	.00008
%RSD	.66366	.00235	.37276	.02370	.53588	1.5818	.40495	.46348	.07749

#1	.05418	2.2574	1.0024	1.0431	2.0644	.04675	2.0075	45.713	.10112
#2	.05469	2.2574	1.0077	1.0434	2.0488	.04571	2.0190	45.415	.10123

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
High Limit		2.2299							
Low Limit		1.7300							

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50944	F .20181	.25368	F .83061	F 57.481	1.0975	53.185	.52703	1.0272
Stddev	.00019	.00028	.00044	.01349	.129	.0013	.000	.00044	.0021
%RSD	.03671	.14116	.17242	1.6246	.22413	.11825	.00024	.08380	.20073

#1	.50957	.20161	.25337	.84015	57.572	1.0966	53.185	.52735	1.0257
#2	.50930	.20201	.25399	.82106	57.390	1.0984	53.185	.52672	1.0286

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.05750		1.1500	57.000				
Low Limit		.04275		.89000	44.500				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 56.941	.51644	10.753	.50608	1.8995	.49929	2.0203	9.0801	19.431
Stddev	1.180	.00002	.026	.00174	.0088	.00143	.0050	.0938	.201
%RSD	2.0727	.00378	.23732	.34349	.46377	.28555	.24967	1.0327	1.0327

#1	57.775	.51642	10.735	.50485	1.8933	.49828	2.0167	9.1464	19.573
#2	56.106	.51645	10.771	.50731	1.9058	.50030	2.0238	9.0138	19.290

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit	56.000								
Low Limit	45.500								

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9827	1.0092	1.0032	1.0508	1.9671	2.0941	.53183	.51543	.49084
Stddev	.0015	.0037	.0034	.0019	.0079	.0473	.00181	.00014	.00573
%RSD	.07458	.37097	.33792	.17710	.40231	2.2594	.34060	.02653	1.1681

#1	1.9837	1.0118	1.0056	1.0521	1.9615	2.0607	.53055	.51533	.49489
#2	1.9816	1.0065	1.0008	1.0495	1.9727	2.1276	.53311	.51552	.48678

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4672.7	58694.	6149.1
Stddev	5.7	30.	7.6
%RSD	.12251	.05143	.12361

#1	4676.7	58673.	6154.5
#2	4668.6	58716.	6143.8

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00878	7.3951	.10989	3.3074	.85468	.00034	.00775	114.14	W 3.5300
Stddev	.00015	.0150	.00168	.0019	.00340	.00005	.00099	.28	.0012
%RSD	1.6875	.20272	1.5251	.05757	.39778	13.379	12.722	.24138	.03483

#1	.00888	7.3845	.10870	3.3061	.85228	.00031	.00845	113.94	3.5291
#2	.00867	7.4057	.11107	3.3088	.85709	.00037	.00705	114.33	3.5309

Check ?	Chk Pass	Chk Warn							
High Limit									2.0000
Low Limit									-.00500

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04837	W .68795	W 11.166	12.719	W 315.79	.16219	39.795	.65641	2.8437
Stddev	.00072	.00097	.007	.024	.10	.00253	.056	.00043	.0053
%RSD	1.4807	.14121	.06205	.18792	.03283	1.5587	.13997	.06491	.18642

#1	.04888	.68864	11.171	12.702	315.72	.16040	39.756	.65611	2.8475
#2	.04787	.68726	11.161	12.736	315.87	.16398	39.835	.65671	2.8400

Check ?	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.10000	10.000		100.00				
Low Limit		-.01000	-.01000		-.50000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 2140.8	.12396	F 212.82	.18267	F 1339.0	.14853	.04892	12.527	26.809
Stddev	4.0	.00065	.19	.00101	1.8	.00227	.00423	.002	.005
%RSD	.18709	.52168	.09128	.55411	.13618	1.5281	8.6530	.01834	.01834

#1	2138.0	.12442	212.96	.18338	1337.7	.15013	.04592	12.529	26.812
#2	2143.6	.12351	212.68	.18195	1340.3	.14693	.05191	12.526	26.805

Check ?	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00		50.000		200.00				
Low Limit	11.000		-2.0000		-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10072	1.1093	.00343	.09419	.01012	-.02641	.05382	.85263	.01018
Stddev	.00117	.0024	.00061	.00022	.00109	.01246	.00017	.00067	.00042
%RSD	1.1626	.21950	17.668	.23432	10.759	47.194	.31166	.07813	4.1175

#1	.10155	1.1075	.00300	.09404	.00935	-.03522	.05394	.85310	.00988
#2	.09989	1.1110	.00386	.09435	.01089	-.01760	.05370	.85216	.01047

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4237.5	51849.	6088.4
Stddev	7.1	169.	36.2
%RSD	.16703	.32532	.59387

#1	4232.5	51968.	6114.0
#2	4242.5	51729.	6062.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00243	1.7329	.02886	.74637	.17225	.00014	.00452	23.193	.72130
Stddev	.00012	.0002	.00142	.00205	.00027	.00001	.00141	.001	.00102
%RSD	5.1055	.01173	4.9046	.27521	.15558	9.5653	31.127	.00467	.14168

#1	.00252	1.7327	.02786	.74783	.17244	.00013	.00552	23.193	.72202
#2	.00234	1.7330	.02987	.74492	.17206	.00015	.00353	23.192	.72058

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01002	W .14438	2.3071	2.6378	63.644	.03588	8.6295	.13345	.59644
Stddev	.00023	.00001	.0122	.0012	.072	.00053	.0267	.00030	.00029
%RSD	2.3391	.00885	.52686	.04568	.11281	1.4751	.30930	.22845	.04936

#1	.00985	.14437	2.3157	2.6386	63.593	.03551	8.6483	.13366	.59665
#2	.01018	.14439	2.2985	2.6369	63.695	.03626	8.6106	.13323	.59623

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	430.79	.02668	W 46.460	.03668	F 311.73	.02678	.00889	2.4664	5.2780
Stddev	.74	.00041	.055	.00065	.25	.00165	.00288	.0091	.0195
%RSD	.17096	1.5455	.11755	1.7692	.08156	6.1623	32.441	.36891	.36891

#1	431.31	.02639	46.498	.03622	311.91	.02794	.00685	2.4599	5.2642
#2	430.27	.02697	46.421	.03714	311.55	.02561	.01093	2.4728	5.2918

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			2.0000		200.00				
Low Limit			-1.0000		-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02026	.22289	-.00070	.01817	.00495	-.00439	.01125	.17644	.00138
Stddev	.00026	.00009	.00088	.00002	.00031	.00142	.00076	.00186	.00102
%RSD	1.3007	.03850	125.39	.12059	6.2127	32.254	6.7174	1.0565	74.000

#1	.02044	.22283	-.00132	.01818	.00473	-.00339	.01072	.17775	.00066
#2	.02007	.22295	-.00008	.01815	.00517	-.00540	.01178	.17512	.00210

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4675.2	57884.	6288.1
Stddev	4.4	47.	15.2
%RSD	.09513	.08147	.24142

#1	4678.4	57851.	6298.8
#2	4672.1	57917.	6277.4

Sample Name: 280-70082-a-3-b Acquired: 6/17/2015 3:38:42 Type: Unk
 Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment: 280382 6010B TA W

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02125	4.4722	.04469	1.0879	.54229	.00923	.02616	72.266	.03452
Stddev	.00059	.0086	.00203	.0003	.00047	.00016	.00082	.183	.00045
%RSD	2.7902	.19170	4.5500	.03131	.08738	1.7233	3.1525	.25257	1.3030

#1	.02083	4.4783	.04613	1.0877	.54263	.00912	.02558	72.396	.03483
#2	.02167	4.4662	.04325	1.0881	.54196	.00935	.02674	72.137	.03420

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01580	.04737	.11966	6.4595	W 132.73	.24548	13.337	F 85.089	.05614
Stddev	.00028	.00018	.00006	.0046	.28	.00347	.113	1.104	.00016
%RSD	1.7421	.38149	.05394	.07070	.20741	1.4144	.84648	1.2979	.28418

#1	.01560	.04750	.11970	6.4563	132.93	.24303	13.257	84.308	.05626
#2	.01599	.04724	.11961	6.4627	132.54	.24794	13.417	85.870	.05603

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit					100.00			20.000	
Low Limit					-50000			-.02000	

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	360.30	.03583	W 2.2458	.14009	F 606.04	.04171	.60885	3.4887	7.4659
Stddev	.70	.00037	.0037	.00190	.37	.00156	.00200	.0520	.1112
%RSD	.19380	1.0349	.16646	1.3578	.06141	3.7364	.32820	1.4896	1.4896

#1	360.80	.03557	2.2484	.14143	605.77	.04061	.60743	3.4520	7.3872
#2	359.81	.03609	2.2431	.13874	606.30	.04281	.61026	3.5255	7.5445

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			2.0000		200.00				
Low Limit			-1.0000		-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 390.42	.35954	.10137	.19049	.04386	.13150	.03573	.53721	.01325
Stddev	.89	.00037	.00229	.00046	.00047	.02453	.00009	.00035	.00000
%RSD	.22776	.10300	2.2589	.24063	1.0792	18.658	.25001	.06590	.01926

#1	391.05	.35980	.10299	.19082	.04352	.14885	.03567	.53746	.01325
#2	389.79	.35928	.09975	.19017	.04419	.11415	.03580	.53695	.01325

Check ?	Chk Fail	Chk Pass							
High Limit	20.000								
Low Limit	-.10000								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4694.3	57885.	6343.0
Stddev	13.2	456.	27.3
%RSD	.28189	.78805	.43057

#1	4703.6	58208.	6323.7
#2	4684.9	57563.	6362.4

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	kW .23688	k 7.0126	k .00701	2.2930	.40332	k .00007	k .03788	139.69	k .03287
Stddev	.00125	.0113	.00331	.0007	.00261	.00006	.00126	.49	.00016
%RSD	.52826	.16088	47.258	.02997	.64801	84.386	3.3162	.35097	.48508

#1	k .23776	k 7.0046	k .00467	2.2926	.40147	k .00003	k .03876	139.35	k .03298
#2	k .23599	k 7.0206	k .00936	2.2935	.40516	k .00012	k .03699	140.04	k .03275

Check ?	Chk Warn	Chk Pass							
High Limit	.10000								
Low Limit	-.01000								

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .00132	W .11379	k .21763	13.802	F 1404.5	.04420	k 13.010	^ *****	kF -.02879
Stddev	.00067	.00063	.00015	.015	1.7	.00772	.069	----	.00030
%RSD	51.081	.55661	.06975	.10664	.12044	17.471	.53382	----	1.0465

#1	k .00084	.11335	k .21753	13.791	1403.3	.03874	k 13.059	^ ----	k -.02901
#2	k .00180	.11424	k .21774	13.812	1405.7	.04966	k 12.961	^ ----	k -.02858

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit		.10000			500.00				20.000
Low Limit		-.01000			-2.0000				-.02000

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1552.4	k .12054	W 2.1415	k .48199	kF 3080.2	k .11844	k .61114	k 8.0016	k 17.123
Stddev	9.5	.00047	.0080	.00429	14.8	.00115	.00803	.0559	.120
%RSD	.61165	.39266	.37258	.89016	.48007	.96906	1.3146	.69830	.69830

#1	1545.7	k .12088	2.1471	k .48503	k 3069.7	k .11763	k .61682	k 7.9621	k 17.039
#2	1559.1	k .12021	2.1358	k .47896	k 3090.6	k .11925	k .60545	k 8.0411	k 17.208

Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00		2.0000		200.00				
Low Limit	11.000		-1.0000		-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 798.87	.55383	kF -.11640	k .55893	k .21237	k .64023	kF -.11661	1.6558	k .01005
Stddev	.60	.00304	.00293	.00015	.00820	.01271	.00060	.0006	.00044
%RSD	.07572	.54865	2.5203	.02765	3.8620	1.9848	.51411	.03494	4.4105

#1	798.44	.55168	k -.11433	k .55904	k .21817	k .64922	k -.11619	1.6554	k .01037
#2	799.29	.55598	k -.11848	k .55882	k .20657	k .63125	k -.11704	1.6562	k .00974

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit	20.000		50.000				50.000		
Low Limit	-.10000		-.02000				-.02000		

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4309.4	49819.	5694.9
Stddev	5.0	103.	46.8
%RSD	.11609	.20629	.82265

#1	4313.0	49891.	5728.0
#2	4305.9	49746.	5661.8

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00180	F 44.647	.00494	.00346	.00061	.00018	.96219	.00344	-0.00001	-0.00127	.00073	.00541
Stddev	.00023	.483	.00205	.00080	.00000	.00012	.00113	.00230	.00018	.00049	.00030	.00000
%RSD	12.768	1.0824	41.532	23.143	.45723	64.683	.11748	66.656	2539.7	39.055	41.584	.02877

#1	.00163	44.305	.00349	.00403	.00061	.00027	.96139	.00182	.00012	-0.00092	.00095	.00541
#2	.00196	44.988	.00639	.00289	.00061	.00010	.96299	.00507	-0.00014	-0.00162	.00052	.00540

Check ?	None	Chk Fail	None	None	None	None	Chk Pass	None	None	None	None	None
Value		50.000										
Range		-10.490%										

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 38.532	2.0649	.01324	-0.00018	.04918	-0.00043	263.78	.00189	.00495	.00024	5.0323	-0.00405
Stddev	.159	.0045	.00225	.00454	.00433	.00029	1.31	.00022	.00037	.00010	.0010	.00091
%RSD	.41333	.21532	17.007	2497.6	8.8027	68.558	.49749	11.667	7.5459	39.600	.01926	22.379

#1	38.419	2.0680	.01483	-.00339	.05224	-.00022	262.86	.00173	.00468	.00018	5.0316	-.00341
#2	38.644	2.0617	.01164	.00303	.04612	-.00063	264.71	.00205	.00521	.00031	5.0329	-.00469

Check ?	Chk Fail	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None
Value	50.000											
Range	-10.490%											

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00386	-0.02891	-0.06187	.07854	.00033	4.8773	-0.00116	.00143	10.245	.00318	.00126	-0.01219
Stddev	.00286	.00626	.01340	.01026	.00014	.0120	.00031	.00016	.057	.00013	.00039	.00187
%RSD	74.003	21.652	21.652	13.062	41.967	.24546	27.032	10.902	.55244	4.1945	31.372	15.320

#1	-0.00588	-0.02449	-.05240	.08580	.00024	4.8688	-.00138	.00132	10.205	.00328	.00098	-.01351
#2	-.00184	-.03334	-.07135	.07129	.00043	4.8858	-.00094	.00154	10.285	.00309	.00154	-.01087

Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4768.3	59490.	6184.7
Stddev	5.6	235.	21.7
%RSD	.11641	.39555	.35092

#1	4772.2	59656.	6200.1
#2	4764.3	59324.	6169.4

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50325	F .57908	.97410	.49499	.49759	F .43660	.00006	F 4.4291	.48920	.50873	.48019	.48633
Stddev	.00226	.00006	.00078	.00169	.00170	.00026	.00352	.0501	.00225	.00190	.00072	.00246
%RSD	.44886	.01068	.08022	.34063	.34216	.05854	5997.0	1.1305	.46095	.37329	.14971	.50597

#1	.50165	.57913	.97354	.49380	.49879	.43678	.00255	4.4645	.48760	.50739	.48069	.48459
#2	.50485	.57904	.97465	.49618	.49638	.43642	-.00243	4.3937	.49079	.51007	.47968	.48807

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	None	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		.50000				.50000		5.0000				
Range		10.490%				-10.490%		-10.490%				

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 1.9801	F 55.709	1.0674	20.561	.52310	.48755	F 5.7862	.51217	1.0366	1.0292	.31808	.97201
Stddev	.0059	.044	.0003	.074	.00028	.00072	.0185	.00121	.0040	.0013	.01024	.00292
%RSD	.29656	.07952	.03046	.36155	.05317	.14811	.31914	.23701	.38152	.12652	3.2191	.30028

#1	1.9759	55.740	1.0672	20.509	.52290	.48806	5.7993	.51131	1.0338	1.0301	.32532	.97407
#2	1.9842	55.677	1.0677	20.614	.52330	.48704	5.7732	.51303	1.0394	1.0282	.31084	.96994

Check ?	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value	2.5000	50.000					5.0000					
Range	-10.490%	10.490%					10.490%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.96717	F 4.2061	F 9.0010	1.0124	.48552	-.00166	.50042	.98264	-.01114	.51073	.50862	.46592
Stddev	.00461	.0128	.0274	.0057	.00043	.00141	.00154	.00104	.02308	.00161	.00253	.00083
%RSD	.47670	.30423	.30423	.56200	.08771	85.035	.30818	.10542	207.20	.31547	.49775	.17817

#1	.97043	4.2151	9.0204	1.0164	.48583	-.00266	.49933	.98191	.00518	.51187	.50683	.46651
#2	.96391	4.1970	8.9817	1.0084	.48522	-.00066	.50151	.98337	-.02746	.50959	.51041	.46534

Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value		5.0000	10.700									
Range		-10.490%	-10.490%									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4882.9	61001.	6225.6
Stddev	4.6	174.	.4
%RSD	.09450	.28453	.00716

#1	4886.1	61123.	6225.9
#2	4879.6	60878.	6225.3

Sample Name: CCB Acquired: 6/17/2015 3:50:24 Type: QC
 Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00051	.00059	.00378	.00120	.00009	.00018	.00260	-.00653	-.00023	-.00006	-.00004	-.00047
Stddev	.00013	.00013	.00031	.00034	.00041	.00004	.00120	.00090	.00001	.00000	.00006	.00013
%RSD	26.473	22.113	8.2015	28.388	440.51	24.595	46.026	13.745	5.9289	4.2991	150.67	28.497

#1	.00060	.00068	.00357	.00096	-.00020	.00021	.00344	-.00589	-.00022	-.00006	-.00009	-.00056
#2	.00041	.00050	.00400	.00144	.00038	.00014	.00175	-.00716	-.00024	-.00006	.00000	-.00037

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00525	F 1.0608	F .01155	.00518	.00823	-.00022	.35829	.00030	.00121	-.00111	F .20763	-.00148
Stddev	.00102	.0023	.00511	.00545	.00035	.00015	.00622	.00071	.00277	.00005	.00758	.00100
%RSD	19.435	.21532	44.280	105.10	4.2304	71.204	1.7352	239.89	229.55	4.6519	3.6519	67.846

#1	-.00453	1.0592	.01517	.00903	.00848	-.00033	.36269	.00080	-.00075	-.00108	.21299	-.00077
#2	-.00597	1.0624	.00793	.00133	.00798	-.00011	.35390	-.00021	.00317	-.00115	.20227	-.00218

Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Fail	Chk Pass						
High Limit		.50000	.01000								.20000	
Low Limit		-.50000	-.01000								-.20000	

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00021	-.00512	-.01095	F .03229	.00010	.00073	-.00063	.00129	-.01513	.00093	.00050	.00105
Stddev	.00096	.00901	.01927	.00178	.00005	.00126	.00042	.00129	.00845	.00032	.00047	.00182
%RSD	452.33	175.95	175.95	5.4997	53.169	172.95	66.465	99.842	55.847	34.401	92.630	172.45

#1	-.00047	-.01149	-.02458	.03354	.00006	-.00016	-.00093	.00220	-.00915	.00116	.00017	-.00023
#2	.00090	.00125	.00267	.03103	.00014	.00162	-.00034	.00038	-.02110	.00071	.00083	.00234

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass							
High Limit				.01000								
Low Limit				-.01000								

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4922.6	61304.	6141.4
Stddev	7.1	30.	31.9
%RSD	.14488	.04885	.52012

#1	4917.5	61283.	6164.0
#2	4927.6	61325.	6118.8

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01158	.12497	.01820	.10181	.01039	.00097	.11307	.18388	.00503	.01115	.01049	.01519
Stddev	.00009	.00039	.00126	.00082	.00060	.00000	.00010	.00411	.00010	.00029	.00029	.00029
%RSD	.77725	.31366	6.9084	.80430	5.7463	.26882	.08524	2.2347	2.0668	2.5777	2.8063	1.8940

#1	.01152	.12469	.01731	.10123	.00996	.00097	.11300	.18097	.00511	.01135	.01070	.01539
#2	.01164	.12524	.01909	.10239	.01081	.00097	.11314	.18678	.00496	.01094	.01028	.01499

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.07977	F 4.4466	F .02035	.23183	F .01612	.02007	F 1.4490	.04469	3.1219	.01018	.17701	.00804
Stddev	.00228	.0361	.00031	.00196	.00008	.00003	.0093	.00119	.0145	.00173	.00736	.00143
%RSD	2.8569	.81220	1.5320	.84517	.49012	.16730	.64176	2.6565	.46402	16.949	4.1563	17.745

#1	.07816	4.4210	.02057	.23322	.01617	.02005	1.4424	.04553	3.1322	.01140	.18221	.00905
#2	.08138	4.4721	.02013	.23045	.01606	.02009	1.4555	.04385	3.1117	.00896	.17180	.00703

Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value		3.0000	.01000		.01000		1.0000					
Range		30.000%	30.000%		30.000%		30.000%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01549	.43071	.92173	.12695	.01051	.01518	.01024	.01676	.07176	.01164	.02418	.01150
Stddev	.00053	.03800	.08131	.00050	.00005	.00108	.00015	.00006	.00218	.00014	.00061	.00208
%RSD	3.4334	8.8219	8.8219	.39648	.49773	7.1288	1.5038	.37432	3.0330	1.1894	2.5370	18.125

#1	.01587	.40385	.86423	.12730	.01047	.01442	.01013	.01680	.07329	.01174	.02461	.01297
#2	.01511	.45758	.97922	.12659	.01054	.01595	.01034	.01671	.07022	.01154	.02375	.01003

Check ?	Chk Pass											
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4899.3	61739.	6222.2
Stddev	26.2	204.	14.4
%RSD	.53466	.33010	.23106

#1	4917.9	61595.	6232.4
#2	4880.8	61883.	6212.1

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00323	17.158	.07195	5.7542	1.0005	.00104	-.00124	480.01	.00500
Stddev	.00027	.091	.00042	.0124	.0026	.00010	.00249	1.37	.00002
%RSD	8.3592	.53270	.57687	.21576	.26323	9.5295	201.31	.28608	.41939

#1	.00342	17.093	.07224	5.7454	.99868	.00097	-.00300	480.98	.00502
#2	.00304	17.222	.07165	5.7629	1.0024	.00111	.00052	479.04	.00499

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03824	W .77034	1.2953	65.021	W 196.99	.61265	87.826	1.9682	.14948
Stddev	.00011	.00180	.0038	.695	.70	.00413	.047	.0016	.00100
%RSD	.29935	.23348	.29632	1.0681	.35411	.67365	.05370	.08131	.66957

#1	.03832	.76906	1.2926	64.530	196.50	.60974	87.859	1.9694	.15019
#2	.03816	.77161	1.2980	65.512	197.49	.61557	87.792	1.9671	.14877

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.10000			100.00				
Low Limit		-.01000			-.50000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1768.1	.12955	1.2277	.08835	F 1116.3	.03295	.05311	31.137	66.633
Stddev	8.5	.00044	.0084	.00114	2.3	.00005	.00125	.198	.425
%RSD	.48100	.33836	.68345	1.2867	.20272	.13776	2.3498	.63734	.63734

#1	1762.1	.12986	1.2336	.08915	1114.7	.03292	.05223	30.997	66.333
#2	1774.1	.12924	1.2217	.08754	1117.9	.03298	.05400	31.277	66.934

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00				200.00				
Low Limit	11.000				-.20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50275	2.8987	.00919	.35965	.01531	.00384	.06170	3.9564	.01994
Stddev	.00333	.0110	.00028	.00054	.00224	.00232	.00009	.0070	.00182
%RSD	.66261	.38100	3.0158	.15134	14.610	60.380	.15300	.17674	9.1287

#1	.50511	2.8909	.00938	.36003	.01373	.00548	.06177	3.9613	.01865
#2	.50040	2.9065	.00899	.35926	.01689	.00220	.06164	3.9514	.02123

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4281.5	53499.	6113.0
Stddev	6.6	34.	15.1
%RSD	.15348	.06322	.24646

#1	4286.2	53475.	6102.4
#2	4276.9	53523.	6123.7

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00276	9.8850	.04428	2.0204	.33561	.00035	.01011	202.31	.00731
Stddev	.00024	.0332	.00003	.0009	.00053	.00001	.00251	.10	.00019
%RSD	8.5070	.33563	.06505	.04483	.15925	3.1013	24.870	.04907	2.6115

#1	.00293	9.8615	.04430	2.0198	.33599	.00035	.01188	202.24	.00717
#2	.00260	9.9085	.04426	2.0210	.33523	.00034	.00833	202.38	.00744

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01945	W .48467	.94120	36.388	W 113.71	.31331	77.473	1.8023	.11159
Stddev	.00024	.01391	.00035	.040	.12	.00127	.051	.0005	.00050
%RSD	1.2358	2.8702	.03718	.11034	.10612	.40493	.06628	.03011	.44951

#1	.01962	.47483	.94145	36.360	113.62	.31241	77.509	1.8027	.11123
#2	.01928	.49450	.94096	36.417	113.79	.31420	77.437	1.8019	.11194

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.10000			100.00				
Low Limit		-.01000			-.50000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 815.81	.16040	W 2.6879	.13336	F 637.42	-.00305	.03644	20.447	43.757
Stddev	.60	.00144	.0144	.00084	1.70	.00148	.00544	.089	.190
%RSD	.07359	.89794	.53595	.62812	.26676	48.395	14.937	.43529	.43529

#1	815.39	.15938	2.6777	.13395	638.62	-.00410	.03259	20.384	43.622
#2	816.24	.16142	2.6981	.13277	636.22	-.00201	.04029	20.510	43.892

Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00		2.0000		200.00				
Low Limit	11.000		-1.0000		-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 6.2345	2.5095	.00630	.22055	.01205	W -.05654	.03435	6.1558	.00205
Stddev	.0075	.0012	.00071	.00005	.00116	.02019	.00008	.0091	.00135
%RSD	.12050	.04626	11.215	.02306	9.5863	35.710	.22270	.14728	65.928

#1	6.2291	2.5087	.00580	.22058	.01123	-.07082	.03440	6.1493	.00301
#2	6.2398	2.5103	.00680	.22051	.01287	-.04226	.03430	6.1622	.00110

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit	2.0000					45.000			
Low Limit	-.05000					-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4444.3	55446.	6129.5
Stddev	13.5	250.	7.2
%RSD	.30487	.45067	.11695

#1	4453.9	55269.	6134.6
#2	4434.7	55623.	6124.4

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00766	25.916	.36813	3.3682	.72824	.00147	.01653	176.32	.03756
Stddev	.00119	.038	.00136	.0018	.00167	.00008	.00120	.57	.00020
%RSD	15.492	.14544	.36843	.05240	.22965	5.3975	7.2343	.32361	.52405

#1	.00682	25.942	.36717	3.3694	.72943	.00152	.01569	176.73	.03742
#2	.00850	25.889	.36909	3.3669	.72706	.00141	.01738	175.92	.03770

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02078	W .67802	.98903	53.552	W 219.88	.36071	92.746	2.4261	.14450
Stddev	.00036	.00172	.00311	.237	.64	.00359	.094	.0011	.00017
%RSD	1.7548	.25319	.31417	.44260	.28933	.99558	.10140	.04572	.11668

#1	.02053	.67923	.98683	53.720	220.33	.35817	92.813	2.4269	.14461
#2	.02104	.67680	.99123	53.384	219.43	.36325	92.680	2.4253	.14438

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.10000			100.00				
Low Limit		-.01000			-.50000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 2106.0	.15508	W 3.1491	.40315	F 1028.5	.02880	W 5.6820	45.346	97.041
Stddev	8.0	.00056	.0034	.00481	1.2	.00069	.0014	.293	.628
%RSD	.37840	.36347	.10801	1.1921	.11638	2.4129	.02493	.64704	.64704

#1	2111.6	.15469	3.1515	.39976	1029.4	.02831	5.6810	45.554	97.485
#2	2100.4	.15548	3.1467	.40655	1027.7	.02929	5.6830	45.139	96.597

Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Warn	Chk Pass	Chk Pass
High Limit	500.00		2.0000		200.00		5.0000		
Low Limit	11.000		-1.0000		-20000		-.00500		

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 3.7049	3.0602	.01032	.37652	.01737	-.02720	.12924	8.0005	.02171
Stddev	.0075	.0130	.00165	.00021	.00158	.00719	.00008	.0112	.00051
%RSD	.20177	.42551	15.986	.05692	9.0853	26.430	.05966	.14031	2.3546

#1	3.6996	3.0694	.00915	.37668	.01625	-.03228	.12919	8.0084	.02207
#2	3.7102	3.0510	.01148	.37637	.01849	-.02212	.12930	7.9925	.02135

Check ?	Chk Warn	Chk Pass							
High Limit	2.0000								
Low Limit	-.05000								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4253.1	52531.	6055.4
Stddev	5.2	40.	38.0
%RSD	.12285	.07696	.62793

#1	4249.4	52559.	6028.5
#2	4256.8	52502.	6082.3

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00191	20.194	.07836	W 12.683	.94633	.00225	.00295	W 835.45	.01138
Stddev	.00068	.015	.00013	.002	.00228	.00011	.00336	1.23	.00017
%RSD	35.422	.07391	.16408	.01229	.24058	4.7647	113.70	.14704	1.5104

#1	.00239	20.205	.07827	12.684	.94472	.00217	.00533	836.32	.01150
#2	.00143	20.184	.07845	12.682	.94794	.00233	.00058	834.58	.01126

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit				10.000				500.00	
Low Limit				-.01000				-.05000	

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01866	F 2.4388	2.3979	122.59	W 135.89	.24871	103.81	1.7609	.14247
Stddev	.00038	.0068	.0026	1.21	.07	.00349	.03	.0004	.00026
%RSD	2.0630	.27779	.10936	.98375	.04836	1.4033	.02532	.02148	.17927

#1	.01838	2.4435	2.3998	121.74	135.85	.24624	103.83	1.7607	.14265
#2	.01893	2.4340	2.3961	123.44	135.94	.25118	103.79	1.7612	.14229

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		1.0000			100.00				
Low Limit		-.02000			-.50000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 2086.4	.12269	W 3.6593	.29435	F 568.13	.03627	.18039	21.047	45.040
Stddev	.8	.00030	.0167	.00097	1.06	.00039	.00112	.051	.110
%RSD	.03799	.24573	.45641	.33061	.18607	1.0781	.62049	.24327	.24327

#1	2085.8	.12248	3.6475	.29504	568.87	.03600	.18118	21.011	44.963
#2	2087.0	.12291	3.6711	.29366	567.38	.03655	.17960	21.083	45.118

Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00		2.0000		200.00				
Low Limit	11.000		-1.0000		-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.2814	4.6999	.02179	.28159	.01472	-.02154	.24234	4.8695	.03493
Stddev	.0004	.0059	.00019	.00153	.00217	.00639	.00172	.0039	.00051
%RSD	.03159	.12612	.86232	.54330	14.756	29.680	.70981	.07898	1.4537

#1	1.2817	4.6957	.02192	.28267	.01318	-.01702	.24355	4.8668	.03457
#2	1.2811	4.7040	.02166	.28051	.01625	-.02606	.24112	4.8722	.03529

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4360.8	54857.	6423.4
Stddev	.8	109.	25.8
%RSD	.01864	.19864	.40149

#1	4360.3	54934.	6405.2
#2	4361.4	54780.	6441.6

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00481	12.320	.06245	7.2546	1.9494	.00107	.00233	W 650.20	.00471
Stddev	.00037	.028	.00110	.0121	.0020	.00005	.00338	13.07	.00016
%RSD	7.6590	.22739	1.7672	.16606	.10130	5.0957	144.85	2.0102	3.4459

#1	.00455	12.301	.06323	7.2631	1.9480	.00103	.00472	640.96	.00482
#2	.00508	12.340	.06167	7.2460	1.9508	.00111	-.00006	659.44	.00459

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								500.00	
Low Limit								-.05000	

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02309	W .46714	1.4380	55.403	W 398.48	1.1474	165.36	6.2789	.09772
Stddev	.00060	.00906	.0000	.003	1.31	.0030	.16	.0597	.00241
%RSD	2.6046	1.9403	.00018	.00519	.32836	.26087	.09728	.95077	2.4641

#1	.02351	.47355	1.4380	55.405	399.41	1.1453	165.24	6.2367	.09942
#2	.02266	.46073	1.4380	55.401	397.56	1.1495	165.47	6.3211	.09602

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.10000			100.00				
Low Limit		-.01000			-.50000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 3403.6	.11694	W 2.1742	.06548	F 867.84	.01626	.07391	25.350	54.249
Stddev	3.7	.00226	.0500	.00080	1.80	.00080	.00045	.013	.028
%RSD	.10914	1.9357	2.3016	1.2143	.20734	4.9316	.60434	.05226	.05226

#1	3406.2	.11854	2.2096	.06605	869.11	.01569	.07360	25.341	54.229
#2	3400.9	.11534	2.1388	.06492	866.57	.01683	.07423	25.360	54.269

Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00		2.0000		200.00				
Low Limit	11.000		-1.0000		-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.62226	W 5.2284	.00850	.28806	.01820	.03416	.05335	2.6203	.02434
Stddev	.01320	.0000	.00249	.00057	.00123	.00975	.00021	.0051	.00303
%RSD	2.1215	.00032	29.274	.19945	6.7747	28.547	.39553	.19373	12.466

#1	.63159	5.2284	.01026	.28766	.01907	.04106	.05320	2.6239	.02219
#2	.61292	5.2284	.00674	.28847	.01732	.02726	.05350	2.6167	.02648

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		5.0000							
Low Limit		-.01000							

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4053.3	50740.	5963.7
Stddev	.8	95.	17.9
%RSD	.01853	.18698	.29934

#1	4052.8	50807.	5951.1
#2	4053.9	50673.	5976.3

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00554	17.465	.04511	1.9301	1.5478	.00128	-.00006	298.48	.00182
Stddev	.00003	.098	.00292	.0018	.0069	.00004	.00119	2.76	.00029
%RSD	.47372	.56193	6.4653	.09380	.44259	3.3757	1913.1	.92493	16.076

#1	.00556	17.535	.04717	1.9314	1.5527	.00131	.00078	300.43	.00203
#2	.00553	17.396	.04305	1.9289	1.5430	.00125	-.00090	296.53	.00162

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02172	W .45214	.88908	67.280	88.452	.36850	59.523	1.6115	.07385
Stddev	.00017	.01020	.00606	.385	.505	.00417	.042	.0019	.00219
%RSD	.76073	2.2571	.68202	.57260	.57069	1.1312	.07029	.11957	2.9673

#1	.02184	.45935	.89336	67.552	88.809	.36555	59.493	1.6101	.07539
#2	.02161	.44492	.88479	67.007	88.095	.37145	59.553	1.6128	.07230

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 966.93	.09153	1.5278	.08102	F 569.88	.00605	.10851	39.037	83.538
Stddev	5.11	.00220	.0378	.00039	.41	.00110	.00017	.176	.377
%RSD	.52900	2.3992	2.4725	.48587	.07128	18.189	.15292	.45160	.45160

#1	970.55	.09308	1.5545	.08129	569.59	.00682	.10863	39.161	83.805
#2	963.32	.08998	1.5011	.08074	570.17	.00527	.10840	38.912	83.272

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00				200.00				
Low Limit	11.000				-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.80714	1.3977	.00954	.39537	.01290	-.02697	.04520	1.6580	.02001
Stddev	.01709	.0050	.00197	.00313	.00027	.01331	.00037	.0131	.00006
%RSD	2.1175	.35432	20.605	.79067	2.1189	49.341	.82104	.79048	.31081

#1	.81923	1.4012	.01093	.39758	.01270	-.03638	.04546	1.6673	.02006
#2	.79506	1.3942	.00815	.39316	.01309	-.01756	.04494	1.6488	.01997

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4531.0	56421.	6202.2
Stddev	.1	218.	65.5
%RSD	.00287	.38696	1.0558

#1	4530.9	56575.	6155.9
#2	4531.1	56266.	6248.5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00440	23.655	.04570	5.7052	1.1180	.00110	-.00005	353.05	.00228
Stddev	.00007	.042	.00685	.0082	.0002	.00006	.00322	2.01	.00032
%RSD	1.6384	.17614	14.991	.14359	.01665	5.1647	6108.1	.56922	13.974

#1	.00446	23.626	.04085	5.6994	1.1178	.00106	-.00233	354.47	.00206
#2	.00435	23.685	.05054	5.7110	1.1181	.00114	.00222	351.63	.00251

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02044	W .45848	1.1150	71.456	50.185	.33082	101.44	2.2712	.06800
Stddev	.00002	.00341	.0013	.104	.024	.00131	.31	.0055	.00043
%RSD	.10949	.74427	.11546	.14572	.04795	.39469	.31008	.24103	.62521

#1	.02046	.46090	1.1159	71.529	50.202	.33174	101.22	2.2673	.06830
#2	.02042	.45607	1.1141	71.382	50.168	.32989	101.66	2.2751	.06770

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 793.56	.12960	1.8382	.07451	F 772.30	.00541	.09005	43.305	92.672
Stddev	1.06	.00124	.0109	.00031	2.35	.00161	.00494	.051	.110
%RSD	.13340	.95942	.59204	.41453	.30409	29.864	5.4878	.11893	.11893

#1	792.81	.13047	1.8458	.07472	770.64	.00427	.09354	43.341	92.750
#2	794.30	.12872	1.8305	.07429	773.96	.00655	.08655	43.268	92.595

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00				200.00				
Low Limit	11.000				-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.34563	2.5455	.01731	.43466	.01545	-.02536	.05267	2.8896	.02029
Stddev	.00368	.0034	.00314	.00022	.00173	.02046	.00046	.0092	.00037
%RSD	1.0650	.13236	18.111	.05158	11.210	80.686	.86589	.31721	1.8286

#1	.34824	2.5432	.01510	.43482	.01668	-.03983	.05299	2.8831	.02056
#2	.34303	2.5479	.01953	.43450	.01423	-.01089	.05235	2.8960	.02003

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4354.0	54974.	6100.7
Stddev	3.7	267.	23.5
%RSD	.08544	.48580	.38536

#1	4351.4	55163.	6117.3
#2	4356.6	54785.	6084.1

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00108	45.399	.00481	.01764	.00084	.00014	.97906	.02829	.00003	-.00130	.00067
Stddev	.00007	.235	.00045	.00095	.00030	.00007	.00325	.01029	.00002	.00014	.00024
%RSD	6.6028	.51721	9.4622	5.3939	36.143	53.235	.33219	36.365	85.929	10.577	35.257

#1	.00113	45.233	.00513	.01832	.00105	.00009	.98136	.03556	.00004	-.00120	.00050
#2	.00103	45.565	.00448	.01697	.00062	.00019	.97676	.02101	.00001	-.00139	.00084

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00540	F 38.210	1.5666	.01466	.00864	-.00184	-.00057	273.59	.00185	.00797	.00224
Stddev	.00055	.195	.0465	.00046	.00427	.00000	.00022	.69	.00023	.00285	.00081
%RSD	10.267	.50993	2.9668	3.1217	49.443	.01602	37.877	.25390	12.671	35.704	36.354

#1	.00579	38.072	1.5995	.01498	.00562	-.00184	-.00042	273.10	.00168	.00998	.00167
#2	.00501	38.348	1.5338	.01433	.01166	-.00184	-.00073	274.08	.00201	.00596	.00282

Check ?	None	Chk Fail	None	None	None	None	None	Chk Pass	None	None	None
Value		50.000									
Range		-10.490%									

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.9594	-.00361	-.00506	.00653	.01398	-.00246	.00048	4.9989	-.00110	.00208	W 10.614
Stddev	.0328	.00062	.00398	.00491	.01051	.00068	.00002	.0019	.00022	.00206	.002
%RSD	.66142	17.125	78.675	75.166	75.166	27.589	4.3940	.03894	19.637	98.717	.01414

#1	4.9362	-.00317	-.00224	.00306	.00655	-.00198	.00047	4.9975	-.00125	.00063	10.615
#2	4.9826	-.00405	-.00787	.01000	.02141	-.00294	.00050	5.0003	-.00094	.00354	10.613

Check ?	Chk Pass	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value											10.000
Range											5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00324	.00189	-.01648
Stddev	.00043	.00031	.00119
%RSD	13.354	16.181	7.2460

#1	.00355	.00210	-.01564
#2	.00294	.00167	-.01733

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4531.4	56786.	5763.4
Stddev	11.8	89.	2.8
%RSD	.26006	.15746	.04925

#1	4539.8	56723.	5761.4
#2	4523.1	56849.	5765.4

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51945	F .59699	1.0034	.51518	.52008	F .44701	.00120	4.5715	.50302	.52656	.49777	.50180
Stddev	.00215	.00186	.0042	.00094	.00172	.00187	.00135	.0209	.00009	.00017	.00096	.00119
%RSD	.41423	.31137	.41702	.18309	.32995	.41809	112.67	.45780	.01699	.03287	.19383	.23737

#1	.51792	.59831	1.0064	.51585	.51887	.44568	.00024	4.5567	.50308	.52668	.49846	.50264
#2	.52097	.59568	1.0005	.51451	.52130	.44833	.00215	4.5863	.50296	.52644	.49709	.50096

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		.50000				.50000						
Range		10.490%				-10.490%						

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 1.9815	F 58.822	F 1.1240	21.327	.52736	.50462	F 6.5350	.53062	1.0638	1.0609	.25475	1.0008
Stddev	.0037	.280	.0030	.032	.00060	.00132	.0196	.00033	.0032	.0050	.00053	.0148
%RSD	.18731	.47596	.26304	.15026	.11462	.26076	.29919	.06225	.29888	.46642	.20832	1.4778

#1	1.9789	58.624	1.1219	21.304	.52693	.50555	6.5211	.53039	1.0615	1.0574	.25513	.99030
#2	1.9842	59.020	1.1261	21.349	.52779	.50369	6.5488	.53086	1.0660	1.0644	.25438	1.0112

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value	2.5000	50.000	1.0000				5.0000					
Range	-10.490%	10.490%	10.490%				10.490%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0005	F 4.3711	F 9.3542	1.0103	.50480	-.00266	.51928	1.0200	-.01889	.53221	.53172	.48387
Stddev	.0156	.0425	.0910	.0141	.00115	.00060	.00148	.0119	.01824	.00069	.00169	.00186
%RSD	1.5606	.97228	.97228	1.3912	.22693	22.565	.28496	1.1642	96.551	.12935	.31796	.38400

#1	.98949	4.3411	9.2898	1.0004	.50399	-.00308	.52033	1.0116	-.03179	.53172	.53052	.48255
#2	1.0116	4.4012	9.4185	1.0203	.50561	-.00223	.51824	1.0284	-.00599	.53269	.53291	.48518

Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value		5.0000	10.700									
Range		-10.490%	-10.490%									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4656.2	57774.	5719.8
Stddev	.2	120.	28.4
%RSD	.00485	.20775	.49583

#1	4656.0	57859.	5739.8
#2	4656.3	57690.	5699.7

Sample Name: CCB Acquired: 6/17/2015 4:22:56 Type: QC
 Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .00106	.00045	.00490	.00894	.00047	-.00003	.00148	-.00285	-.00019	.00024	-.00010
Stddev	.00027	.00018	.00091	.00035	.00031	.00002	.00192	.00413	.00017	.00017	.00007
%RSD	24.925	40.154	18.574	3.8787	66.203	73.690	129.82	144.67	86.267	71.435	69.325

#1	.00088	.00058	.00426	.00870	.00025	-.00005	.00284	-.00577	-.00007	.00012	-.00005
#2	.00125	.00032	.00554	.00919	.00069	-.00002	.00012	.00007	-.00031	.00036	-.00015

Check ?	Chk Warn	Chk Pass									
High Limit	.00100										
Low Limit	-.00100										

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00054	-.00430	F .85236	.00852	.00230	.00019	-.00017	F .82320	.00014	.00048	-.00031
Stddev	.00004	.00201	.00645	.00098	.00805	.00004	.00001	.01437	.00008	.00120	.00200
%RSD	7.2221	46.690	.75683	11.525	350.64	20.294	8.0078	1.7461	54.039	252.28	645.00

#1	-.00057	-.00288	.84780	.00782	-.00340	.00016	-.00016	.81303	.00020	-.00037	-.00172
#2	-.00052	-.00573	.85692	.00921	.00799	.00022	-.00018	.83336	.00009	.00132	.00110

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit			.50000					.50000			
Low Limit			-.50000					-.50000			

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.18192	-.00286	-.00054	.00310	.00663	.00398	-.00012	.00125	-.00072	.00146	-.02919
Stddev	.00529	.00081	.00064	.01303	.02789	.00048	.00008	.00005	.00041	.00045	.01826
%RSD	2.9102	28.490	118.74	420.40	420.40	11.998	68.529	3.9555	57.213	30.887	62.555

#1	.18566	-.00343	-.00009	-.00612	-.01309	.00364	-.00018	.00128	-.00043	.00178	-.04211
#2	.17818	-.00228	-.00099	.01232	.02636	.00432	-.00006	.00121	-.00101	.00114	-.01628

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00088	.00017	-.00201
Stddev	.00002	.00023	.00033
%RSD	2.2941	134.89	16.547

#1	.00087	.00001	-.00178
#2	.00090	.00034	-.00225

Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4707.3	59071.	5724.6
Stddev	1.0	86.	6.2
%RSD	.02173	.14587	.10835

#1	4708.0	59132.	5729.0
#2	4706.5	59010.	5720.3

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01252	.12742	.01756	.11040	.01075	.00098	.11172	.18941	.00508	.01114	.01060	.01505
Stddev	.00006	.00042	.00378	.00198	.00007	.00007	.00065	.00359	.00010	.00035	.00007	.00053
%RSD	.50455	.33191	21.545	1.7920	.67123	7.3915	.58321	1.8939	2.0549	3.1235	.67901	3.5170

#1	.01257	.12772	.01488	.11180	.01070	.00103	.11218	.18687	.00515	.01089	.01065	.01468
#2	.01248	.12712	.02023	.10900	.01080	.00093	.11126	.19194	.00501	.01139	.01055	.01543

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.07988	F 4.4881	F .02237	.23618	.01157	.02001	F 1.8938	.04471	3.1334	.01006	.15407	.00934
Stddev	.00133	.0309	.00165	.00179	.00003	.00020	.0082	.00099	.0321	.00183	.00540	.00074
%RSD	1.6641	.68781	7.3696	.75702	.28601	1.0144	.43327	2.2046	1.0237	18.197	3.5067	7.8988

#1	.07894	4.4662	.02121	.23744	.01154	.02015	1.8880	.04540	3.1561	.01135	.15789	.00986
#2	.08082	4.5099	.02354	.23492	.01159	.01986	1.8996	.04401	3.1107	.00876	.15025	.00882

Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value		3.0000	.01000				1.0000					
Range		30.000%	30.000%				30.000%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01324	.44994	.96287	.10548	.01063	.01698	.00986	.01637	.06820	.01137	.02385	.01296
Stddev	.00294	.01139	.02438	.00172	.00003	.00308	.00031	.00051	.02322	.00092	.00082	.00010
%RSD	22.206	2.5315	2.5315	1.6343	.29870	18.116	3.1464	3.1355	34.050	8.1183	3.4287	.74004

#1	.01116	.45799	.98010	.10670	.01061	.01480	.00964	.01601	.08462	.01072	.02327	.01290
#2	.01532	.44188	.94563	.10426	.01066	.01915	.01008	.01674	.05178	.01202	.02443	.01303

Check ?	Chk Pass											
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4752.1	58970.	5767.3
Stddev	.4	1.	14.8
%RSD	.00792	.00243	.25744

#1	4752.4	58971.	5756.8
#2	4751.9	58969.	5777.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00030	.00188	.00290	.00720	.00030	.00000	.00330	-.00135	-.00010
Stddev	.00023	.00027	.00095	.00011	.00005	.00003	.00160	.00951	.00002
%RSD	78.619	14.506	32.888	1.5038	18.274	666.54	48.520	706.13	22.115

#1	.00013	.00168	.00223	.00727	.00034	.00003	.00217	-.00808	-.00012
#2	.00046	.00207	.00357	.00712	.00026	-.00002	.00443	.00538	-.00009

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00014	-.00019	-.00030	-.00017	.60814	W .00972	.00158	.00021	-.00052
Stddev	.00004	.00022	.00023	.00030	.00113	.00186	.01090	.00005	.00017
%RSD	24.614	119.04	78.198	175.24	.18571	19.175	688.13	23.260	32.836

#1	-.00017	-.00034	-.00013	-.00039	.60734	.01104	-.00612	.00025	-.00040
#2	-.00012	-.00003	-.00046	.00004	.60894	.00840	.00929	.00018	-.00064

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						.00500			
Low Limit						-.00500			

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .58871	.00035	-.00039	.00059	F .13692	-.00137	-.00025	.00746	.01597
Stddev	.00296	.00034	.00004	.00091	.00651	.00013	.00049	.01926	.04121
%RSD	.50244	98.231	10.441	154.46	4.7532	9.3839	197.98	258.01	258.01

#1	.59080	.00011	-.00036	-.00005	.14152	-.00146	.00010	.02108	.04512
#2	.58662	.00059	-.00042	.00123	.13232	-.00128	-.00059	-.00615	-.01317

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None
High Limit	.50000				.10000				
Low Limit	-.50000				-.10000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00303	-.00010	.00082	-.00013	-.00120	-.02288	.00078	.00118	-.00367
Stddev	.00053	.00012	.00010	.00010	.00157	.01500	.00005	.00026	.00027
%RSD	17.552	122.55	12.246	77.650	130.90	65.567	5.7873	22.299	7.3952

#1	.00265	-.00019	.00075	-.00020	-.00009	-.03348	.00081	.00099	-.00348
#2	.00340	-.00001	.00090	-.00006	-.00231	-.01227	.00075	.00136	-.00386

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4774.2	59740.	5810.4
Stddev	15.2	8.	5.7
%RSD	.31753	.01261	.09810

#1	4763.5	59745.	5806.4
#2	4784.9	59735.	5814.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05439	F 2.2360	.98378	1.0262	2.0570	.04490	1.9753	F 44.239	.09912
Stddev	.00046	.0043	.00055	.0042	.0049	.00012	.0091	.021	.00074
%RSD	.85471	.19194	.05599	.40635	.23649	.27830	.45996	.04747	.74577

#1	.05406	2.2390	.98417	1.0292	2.0535	.04499	1.9817	44.224	.09964
#2	.05472	2.2329	.98339	1.0233	2.0604	.04481	1.9689	44.254	.09860

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Fail	Chk Pass
High Limit		2.2299						55.500	
Low Limit		1.7300						44.750	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50116	F .19791	.24892	F .79178	F 58.646	1.1149	52.639	.51992	1.0075
Stddev	.00032	.00098	.00004	.00323	.188	.0014	.019	.00030	.0005
%RSD	.06434	.49475	.01716	.40733	.32040	.12752	.03526	.05686	.05260

#1	.50139	.19861	.24889	.78950	58.513	1.1139	52.626	.51971	1.0079
#2	.50093	.19722	.24895	.79406	58.778	1.1159	52.653	.52013	1.0072

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.05750		1.1500	57.000				
Low Limit		.04275		.89000	44.500				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 57.444	.50405	10.549	.49746	1.9642	.48608	1.9583	F 8.6695	18.553
Stddev	1.201	.00354	.040	.00144	.0106	.00438	.0157	.1467	.314
%RSD	2.0904	.70268	.37727	.28994	.53881	.90131	.80366	1.6918	1.6918

#1	56.595	.50656	10.577	.49848	1.9717	.48918	1.9694	8.5658	18.331
#2	58.293	.50155	10.521	.49644	1.9567	.48298	1.9471	8.7732	18.775

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Fail	None
High Limit	56.000							11.000	
Low Limit	45.500							9.0000	

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9287	1.0004	.98610	1.0352	1.9065	2.0189	.52398	.51158	.47687
Stddev	.0079	.0030	.00128	.0022	.0112	.0094	.00136	.00347	.00771
%RSD	.41136	.30257	.12992	.21769	.58871	.46354	.26013	.67788	1.6166

#1	1.9343	.99828	.98701	1.0336	1.9144	2.0123	.52302	.50912	.47142
#2	1.9231	1.0026	.98520	1.0368	1.8985	2.0255	.52494	.51403	.48232

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4557.0	57059.	5740.2
Stddev	9.2	154.	45.5
%RSD	.20235	.26968	.79190

#1	4550.5	57168.	5772.4
#2	4563.6	56950.	5708.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05494	F 2.2608	1.0021	1.0444	2.0721	.04493	1.9954	F 44.533	.10071
Stddev	.00005	.0080	.0001	.0011	.0002	.00021	.0035	.002	.00004
%RSD	.09733	.35528	.00820	.10135	.00928	.46715	.17656	.00351	.04281

#1	.05498	2.2665	1.0021	1.0451	2.0722	.04508	1.9979	44.532	.10074
#2	.05490	2.2551	1.0022	1.0436	2.0719	.04478	1.9930	44.534	.10068

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Fail	Chk Pass
High Limit		2.2299						55.500	
Low Limit		1.7300						44.750	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51040	F .19871	.25351	F .78605	F 59.141	1.1174	53.304	.52570	1.0187
Stddev	.00327	.00095	.00057	.00070	.123	.0047	.089	.00042	.0027
%RSD	.64052	.47988	.22663	.08900	.20857	.42185	.16676	.08049	.26511

#1	.50809	.19938	.25311	.78654	59.229	1.1207	53.367	.52600	1.0206
#2	.51271	.19804	.25392	.78556	59.054	1.1141	53.241	.52540	1.0168

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.05750		1.1500	57.000				
Low Limit		.04275		.89000	44.500				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 57.654	.51272	10.713	.50421	1.9990	.49448	2.0041	F 8.7101	18.640
Stddev	.090	.00116	.021	.00041	.0074	.00316	.0134	.0222	.047
%RSD	.15576	.22594	.19796	.08079	.37204	.63914	.66711	.25450	.25450

#1	57.718	.51354	10.698	.50449	2.0043	.49225	1.9947	8.7257	18.673
#2	57.591	.51190	10.728	.50392	1.9938	.49671	2.0136	8.6944	18.606

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Fail	None
High Limit	56.000							11.000	
Low Limit	45.500							9.0000	

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9642	1.0093	.99443	1.0505	1.9388	2.0728	.53045	.51919	.47636
Stddev	.0107	.0001	.00240	.0003	.0142	.0144	.00203	.00128	.00856
%RSD	.54344	.01152	.24148	.02374	.73219	.69332	.38235	.24728	1.7974

#1	1.9567	1.0094	.99273	1.0503	1.9288	2.0627	.53188	.52010	.48242
#2	1.9718	1.0092	.99613	1.0506	1.9488	2.0830	.52901	.51828	.47031

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4567.5	57008.	5782.3
Stddev	2.0	141.	1.2
%RSD	.04387	.24726	.02034

#1	4566.1	56909.	5783.1
#2	4568.9	57108.	5781.4

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02183	21.448	.22262	3.7204	.73329	.01516	F .28508	198.23	.06960
Stddev	.00041	.002	.00400	.0023	.00162	.00001	.00046	.14	.00055
%RSD	1.8694	.00705	1.7961	.06280	.22106	.09094	.16018	.06906	.79218

#1	.02212	21.447	.21979	3.7187	.73215	.01515	.28476	198.32	.06921
#2	.02154	21.449	.22544	3.7220	.73444	.01517	.28540	198.13	.06999

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09176	W .13633	.36138	22.063	62.024	.26034	51.959	F 20.743	.24430
Stddev	.00004	.00021	.00001	.021	.031	.00409	.014	.081	.00043
%RSD	.03987	.15044	.00195	.09698	.04952	1.5711	.02610	.39114	.17509

#1	.09174	.13648	.36137	22.078	62.002	.25745	51.968	20.686	.24400
#2	.09179	.13619	.36138	22.048	62.045	.26323	51.949	20.801	.24461

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass				
High Limit		.10000						20.000	
Low Limit		-.01000						-.02000	

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	321.97	.11929	W 4.6549	1.3170	F 218.21	.11809	.54972	10.376	22.204
Stddev	.42	.00037	.0171	.0009	.47	.00381	.00262	.143	.307
%RSD	.13055	.31352	.36808	.06693	.21391	3.2252	.47677	1.3814	1.3814

#1	321.67	.11956	4.6670	1.3163	218.54	.11540	.55157	10.274	21.987
#2	322.27	.11903	4.6428	1.3176	217.88	.12079	.54787	10.477	22.421

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			2.0000		200.00				
Low Limit			-1.0000		-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 380.46	1.6566	.21560	.81456	.28186	.45370	.15085	.68845	.09333
Stddev	2.07	.0017	.00164	.00201	.00214	.03559	.00146	.00081	.00158
%RSD	.54478	.10017	.75981	.24624	.76045	7.8447	.96860	.11781	1.6899

#1	381.93	1.6555	.21444	.81314	.28034	.47887	.15188	.68788	.09444
#2	379.00	1.6578	.21676	.81598	.28337	.42854	.14982	.68902	.09221

Check ?	Chk Fail	Chk Pass							
High Limit	20.000								
Low Limit	-.10000								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4436.0	55620.	5902.4
Stddev	5.0	122.	3.0
%RSD	.11294	.21931	.05043

#1	4432.5	55706.	5904.5
#2	4439.6	55534.	5900.3

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00611	4.7120	.05692	.85785	.15802	.00330	W .06589	43.528	.01476
Stddev	.00024	.0047	.00351	.00000	.00073	.00018	.00019	.179	.00011
%RSD	3.9347	.10061	6.1587	.00028	.45901	5.3185	.28265	.41202	.77574

#1	.00594	4.7086	.05940	.85785	.15750	.00342	.06575	43.402	.01468
#2	.00628	4.7153	.05444	.85785	.15853	.00317	.06602	43.655	.01484

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass					
High Limit							.05000		
Low Limit							-.05000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02106	.02994	.07873	4.9481	13.779	.06343	12.127	4.7974	.05153
Stddev	.00014	.00033	.00009	.0004	.005	.00064	.014	.0320	.00017
%RSD	.64656	1.0961	.11779	.00918	.03598	1.0161	.11423	.66708	.32783

#1	.02116	.02971	.07866	4.9485	13.776	.06388	12.117	4.8201	.05165
#2	.02096	.03017	.07879	4.9478	13.783	.06297	12.137	4.7748	.05142

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	71.209	.02764	1.0328	.30185	47.742	.01969	.12465	2.3005	4.9230
Stddev	.338	.00008	.0061	.00101	.020	.00053	.00115	.0369	.0790
%RSD	.47417	.29883	.59375	.33441	.04131	2.6926	.92646	1.6044	1.6044

#1	70.970	.02770	1.0285	.30113	47.756	.01931	.12383	2.2744	4.8671
#2	71.448	.02758	1.0371	.30256	47.728	.02006	.12547	2.3266	4.9788

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 107.87	.35463	.04756	.17957	.07227	.06521	.03331	.16179	.01986
Stddev	.08	.00130	.00001	.00079	.00005	.02171	.00001	.00095	.00301
%RSD	.07304	.36754	.01830	.43861	.06999	33.296	.01950	.59022	15.147

#1	107.92	.35370	.04755	.17901	.07230	.08057	.03330	.16246	.02199
#2	107.81	.35555	.04756	.18013	.07223	.04986	.03331	.16111	.01773

Check ?	Chk Fail	Chk Pass							
High Limit	20.000								
Low Limit	-.10000								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4646.4	57887.	5754.7
Stddev	2.2	99.	37.5
%RSD	.04836	.17061	.65179

#1	4644.8	57817.	5781.2
#2	4648.0	57957.	5728.2

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00138	45.641	.00394	.00758	.00054	.00003	.98160	-.00085	-.00023	-.00141	.00059
Stddev	.00063	.296	.00101	.00015	.00014	.00005	.00333	.00327	.00009	.00048	.00048
%RSD	45.566	.64956	25.743	1.9959	25.749	150.93	.33972	386.54	40.119	33.978	81.581

#1	.00183	45.851	.00322	.00769	.00044	.00000	.98396	.00147	-.00029	-.00175	.00025
#2	.00094	45.431	.00466	.00748	.00064	.00007	.97925	-.00316	-.00016	-.00107	.00093

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00546	F 38.216	.73379	.01073	.00222	-.00186	-.00057	F 276.79	.00229	.00581	.00096
Stddev	.00052	.124	.02086	.00004	.00202	.00007	.00023	1.26	.00068	.00033	.00164
%RSD	9.5999	.32501	2.8431	.39148	91.192	3.8317	40.967	.45441	29.514	5.6263	169.97

#1	.00509	38.304	.71904	.01070	.00079	-.00181	-.00040	277.67	.00181	.00604	.00212
#2	.00583	38.128	.74854	.01076	.00365	-.00191	-.00073	275.90	.00277	.00557	-.00019

Check ?	None	Chk Fail	None	None	None	None	None	Chk Fail	None	None	None
Value		50.000						250.00			
Range		-10.490%						10.490%			

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.7775	-.00606	-.00433	-.02142	-.04583	.01475	.00023	5.0198	-.00137	.00210	W 10.583
Stddev	.0173	.00019	.00021	.01367	.02926	.00037	.00014	.0088	.00033	.00022	.197
%RSD	.36119	3.0785	4.9325	63.846	63.846	2.5341	59.458	.17557	24.219	10.561	1.8654

#1	4.7653	-.00619	-.00449	-.03109	-.06652	.01449	.00033	5.0260	-.00113	.00225	10.723
#2	4.7897	-.00593	-.00418	-.01175	-.02514	.01502	.00014	5.0135	-.00160	.00194	10.444

Check ?	Chk Pass	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value											10.000
Range											5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00405	.00127	-.01671
Stddev	.00048	.00039	.00616
%RSD	11.801	30.591	36.880

#1	.00439	.00154	-.02107
#2	.00371	.00099	-.01236

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4557.6	56426.	5636.9
Stddev	2.7	41.	17.6
%RSD	.05840	.07313	.31142

#1	4559.5	56397.	5649.4
#2	4555.7	56455.	5624.5

Sample Name: CCV-3333645 Acquired: 6/17/2015 4:42:49 Type: QC

Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000

User: S. Scott Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51620	F .59829	1.0001	.51056	.51777	F .44474	.00262	4.5432	.50190	.51868	.49612	.49819
Stddev	.00049	.00214	.0015	.00136	.00075	.00019	.00141	.0117	.00148	.00480	.00086	.00153
%RSD	.09468	.35706	.15184	.26689	.14401	.04247	53.741	.25708	.29547	.92548	.17300	.30688

#1	.51585	.59678	.99907	.50959	.51725	.44461	.00163	4.5350	.50085	.52207	.49551	.49711
#2	.51654	.59980	1.0012	.51152	.51830	.44488	.00362	4.5515	.50295	.51528	.49673	.49927

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		.50000				.50000						
Range		10.490%				-10.490%						

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 1.9592	F 58.471	F 1.1144	21.315	.52676	.50122	F 6.0429	.52688	1.0554	1.0557	.12312	.99428
Stddev	.0138	.108	.0030	.050	.00049	.00493	.0101	.00553	.0147	.0146	.00407	.02719
%RSD	.70687	.18490	.27014	.23263	.09286	.98295	.16694	1.0494	1.3922	1.3816	3.3081	2.7349

#1	1.9494	58.394	1.1122	21.280	.52642	.49774	6.0501	.52297	1.0450	1.0454	.12024	.97506
#2	1.9690	58.547	1.1165	21.350	.52711	.50471	6.0358	.53079	1.0658	1.0661	.12600	1.0135

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value	2.5000	50.000	1.0000				5.0000					
Range	-10.490%	10.490%	10.490%				10.490%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.99005	F 4.2662	F 9.1296	1.0082	.50203	-.00188	.51783	1.0078	-.00548	.53054	.52969	.46905
Stddev	.02278	.0710	.1519	.0188	.00024	.00084	.00176	.0163	.02310	.00137	.00367	.00458
%RSD	2.3006	1.6642	1.6642	1.8679	.04811	44.764	.34043	1.6197	421.75	.25815	.69368	.97557

#1	.97395	4.2160	9.0222	.99485	.50186	-.00128	.51658	.99626	-.02181	.52957	.52709	.46582
#2	1.0062	4.3164	9.2370	1.0215	.50220	-.00247	.51908	1.0193	.01086	.53151	.53229	.47229

Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value		5.0000	10.700									
Range		-10.490%	-10.490%									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4655.5	58069.	5718.0
Stddev	15.4	125.	14.4
%RSD	.33126	.21528	.25218

#1	4666.4	58158.	5728.2
#2	4644.6	57981.	5707.8

Sample Name: CCB Acquired: 6/17/2015 4:45:15 Type: QC
 Method: 6500_025(v52) Mode: CONC Corr. Factor: 1.000000
 User: S. Scott Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00098	.00002	.00464	.00460	.00047	.00011	.00325	-.00574	-.00028	-.00006	.00001	-.00017
Stddev	.00081	.00001	.00102	.00023	.00003	.00004	.00173	.00221	.00006	.00035	.00002	.00082
%RSD	81.762	32.010	22.089	4.9501	6.7979	36.615	53.306	38.427	19.965	620.64	197.45	491.85

#1	.00155	.00002	.00391	.00476	.00049	.00014	.00448	-.00730	-.00024	-.00031	.00000	-.00074
#2	.00042	.00002	.00536	.00444	.00044	.00008	.00203	-.00418	-.00031	.00019	.00002	.00041

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00423	F .66561	.00769	-.00042	.00015	-.00031	.42386	.00030	.00188	.00024	.09406	-.00153
Stddev	.00037	.01458	.00063	.00452	.00003	.00029	.00329	.00059	.00026	.00103	.00240	.00178
%RSD	8.7047	2.1909	8.2158	1063.5	18.463	94.484	.77634	199.04	13.738	426.69	2.5524	116.10

#1	-.00449	.67592	.00724	-.00362	.00016	-.00052	.42153	.00072	.00170	-.00049	.09237	-.00279
#2	-.00397	.65530	.00813	.00277	.00013	-.00010	.42619	-.00012	.00207	.00097	.09576	-.00027

Check ?	Chk Pass	Chk Fail	Chk Pass									
High Limit		.50000										
Low Limit		-.50000										

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00128	-.00364	-.00780	.00784	-.00013	.00047	-.00086	.00102	-.00154	.00038	-.00025	-.00245
Stddev	.00205	.00214	.00458	.00031	.00002	.00032	.00024	.00171	.01450	.00027	.00022	.00107
%RSD	160.02	58.695	58.695	3.9319	16.127	66.788	27.868	168.54	940.81	71.606	86.879	43.767

#1	.00274	-.00516	-.01104	.00806	-.00011	.00025	-.00104	.00223	.00871	.00019	-.00010	-.00321
#2	-.00017	-.00213	-.00456	.00763	-.00014	.00070	-.00069	-.00020	-.01179	.00057	-.00041	-.00169

Check ?	Chk Pass											
High Limit												
Low Limit												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4723.0	58768.	5704.2
Stddev	2.2	152.	13.0
%RSD	.04749	.25902	.22797

#1	4724.6	58876.	5695.0
#2	4721.4	58660.	5713.4

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01173	.12801	.01732	.10731	.01107	.00087	.11145	.18164	.00545	.01149	.01080	.01562
Stddev	.00011	.00158	.00086	.00139	.00003	.00001	.00049	.00184	.00005	.00003	.00011	.00008
%RSD	.92801	1.2312	4.9788	1.2934	.27709	.63570	.44264	1.0121	.86144	.24194	1.0556	.50191

#1	.01181	.12690	.01793	.10829	.01105	.00087	.11110	.18294	.00548	.01151	.01072	.01556
#2	.01166	.12912	.01671	.10632	.01109	.00088	.11179	.18034	.00542	.01147	.01088	.01568

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.07550	F 4.3317	F .01890	.23032	.01151	.02047	F 1.5817	.04525	3.1834	.00984	.08607	.00964
Stddev	.00017	.0458	.00241	.00168	.00010	.00043	.0337	.00065	.0316	.00085	.00028	.00072
%RSD	.22164	1.0572	12.736	.72981	.84417	2.1251	2.1325	1.4406	.99131	8.6823	.32834	7.4612

#1	.07538	4.3641	.02061	.22914	.01144	.02016	1.6056	.04478	3.1611	.00924	.08627	.00913
#2	.07561	4.2993	.01720	.23151	.01158	.02078	1.5579	.04571	3.2057	.01045	.08587	.01015

Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value		3.0000	.01000				1.0000					
Range		30.000%	30.000%				30.000%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01219	.44148	.94477	.11100	.01076	.01595	.01002	.01686	.04603	.01165	.02468	.01470
Stddev	.00040	.01058	.02263	.00249	.00017	.00017	.00006	.00133	.01879	.00025	.00101	.00143
%RSD	3.3070	2.3956	2.3956	2.2456	1.5574	1.0843	.62920	7.8821	40.816	2.1195	4.1029	9.7393

#1	.01190	.43400	.92877	.10924	.01088	.01583	.01006	.01780	.03275	.01147	.02540	.01368
#2	.01247	.44896	.96078	.11276	.01064	.01607	.00997	.01592	.05932	.01182	.02397	.01571

Check ?	Chk Pass											
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	4719.9	58924.	5742.1
Stddev	26.9	105.	3.2
%RSD	.56915	.17803	.05534

#1	4738.9	58999.	5744.4
#2	4700.9	58850.	5739.9

TestAmerica Denver

ICP Data Review Checklist

272/273/274

TALS BATCH NUMBER: 282282/268/271/ Earliest due date: 6.15.15
 Run Date: 6/16/15 Analyst: SCP Instrument: ICP25
 QC programs/Methods Run: 200.7 / 6010B / 6010C

Review Items	Yes	No	N/A	2nd Level
A. Preparation/Matrix QC				
1. LCS done per prep batch and within QC limits?	✓			✓
2. Method blank done per prep batch and < 1/2 RL or CRDL (CLP) or < 2.2x MDL 200.7?	✓			✓
3. MS run at required frequency and within limits?	✓			✓
4. MSD or DU run at required frequency and RPD within SOP limits?	✓			✓
5. Serial dilution done per prep batch (or per SDG for CLP)?	✓			✓
6. Post digest spike analyzed if required (CLP, DOD & AFCEE only)? NCM Whether needed for DODV3, DODV4, DODV5, AFCEE 4.0, 6010C?				✓
B. Calibration/Instrument Run QC				
1. ICV/CCV analyzed at appropriate frequency and within control limits ? (6010B: CLP = 90 - 110%; 200.7: ICV = 95 - 105%, CCV 90-110%) If not in control, was the ICV or CCV reanalyzed twice to show return to control as per NELAP?	✓			✓
2. ICB/CCB analyzed at appropriate frequency and < 1/2 RL or < 2X MDL (DOD V3, AFCEE 4.0)? Was it less than the LODV (DODV4 & DODV5)	✓			✓
3. High Standard (HIGH) reanalyzed before samples and recovered within QC limits? (+-5%)	✓			✓
4. RL STD run and recovered within QC limits ? (± 50% for non-CLP, ± 20% for DoD V3 / DoD V4 / DoD V5 / AFCEE 4.0 / USACE)	✓			✓
5. Was the LLICV/LLCCV analyzed at appropriate frequency for 6010C and within control (+-30 % or +-20%)	✓			✓
6. ICSA/ICSAB run at required frequency and within SOP limits? (ICSA < 2X MDL AFCEE 4.0, DOD V3 or < RL std work or < 2X RL 6010C, DOD V4, DOD V5)	✓			✓
C. Sample Results				
1. For 6010B, were samples with concentrations > the linear range for any parameter diluted and reanalyzed? For 200.7, were samples with concentrations within 90% of the linear range diluted and reanalyzed?	✓			✓
2. For DOD, were samples with concentrations > the daily linear range for any parameter diluted and reanalyzed?	✓			✓
3. Are all reported results bracketed by in control QC?	✓			✓
D. Other				
1. Are all nonconformances documented appropriately?	✓			✓
2. Calculations checked for errors?	✓			✓
3. Transcriptions checked for errors? (Example: Are dilution factors that are entered into the sequence log correct?)	✓			✓
4. All client/project specific requirements met?	✓			✓
5. Date/time of analysis verified as correct?	✓			✓
6. PDF attached, verified uncorrupted?	✓			✓

Analyst: _____ Date: 6/17/15

Comments: _____

2nd Level Reviewer: _____ Date: 6/18/15

Comments: _____

Sample Name: ICIS Acquired: 6/15/2015 10:05:34 Type: Cal
 Method: 6500_026(v12) Mode: IR Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-0.00151	.00268	.00809	-0.00023	.00136	.01106	-0.00039	-0.00127	.00921	.00009	.00063	-0.00080
Stddev	.00009	.00003	.00022	.00003	.00012	.00128	.00149	.00014	.00074	.00035	.00013	.00024
%RSD	5.7121	1.0283	2.6762	14.191	8.9611	11.548	382.34	11.316	8.0061	398.81	20.419	30.053
#1	-.00145	.00266	.00824	-.00021	.00144	.01015	.00066	-.00138	.00973	-.00016	.00054	-.00063
#2	-.00157	.00270	.00794	-.00025	.00127	.01196	-.00144	-.00117	.00869	.00033	.00073	-.00097
Elem	Cu3247	Fe2599	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Na8183	Ni2316	P_1782
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00384	.00170	.00067	.00905	.00247	.00000	.00008	-0.00001	.00925	-0.02460	-0.00083	.00008
Stddev	.00007	.00041	.00010	.00119	.00023	.00004	.00008	.00004	.00038	.00293	.00017	.00006
%RSD	1.8100	23.923	15.238	13.200	9.3916	5082.1	100.26	509.05	4.0811	11.914	20.558	79.887
#1	.00379	.00199	.00060	.00821	.00264	-.00003	.00002	-.00004	.00899	-.02667	-.00071	.00012
#2	.00388	.00142	.00075	.00989	.00231	.00003	.00013	.00002	.00952	-.02253	-.00095	.00003
Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00096	-0.00033	.00037	.00032	.00110	-0.00001	-0.00222	-0.00015	-0.00028	-0.00047	.00028	.00026
Stddev	.00013	.00010	.00035	.00011	.00037	.00005	.00017	.00002	.00004	.00007	.00023	.00009
%RSD	13.138	29.507	95.626	33.117	33.923	494.49	7.7330	11.509	13.797	14.849	82.323	35.698
#1	.00087	-.00026	.00012	.00039	.00136	-.00005	-.00210	-.00016	-.00030	-.00042	.00045	.00032
#2	.00105	-.00040	.00062	.00024	.00083	.00003	-.00234	-.00013	-.00025	-.00051	.00012	.00019
Elem	Zn2062	Zr3391										
Units	Cts/S	Cts/S										
Avg	.00011	-0.00365										
Stddev	.00001	.00022										
%RSD	6.2017	5.9835										
#1	.00011	-.00380										
#2	.00010	-.00349										
Int. Std.	Y_2243	Y_3600	Y_3774									
Units	Cts/S	Cts/S	Cts/S									
Avg	5796.9	81558.	5069.4									
Stddev	7.0	35.	17.5									
%RSD	.11992	.04256	.34600									
#1	5792.0	81534.	5081.8									
#2	5801.8	81583.	5057.0									

Sample Name: IC1 Acquired: 6/15/2015 10:08:16 Type: Cal
 Method: 6500_026(v12) Mode: IR Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.21097	.14695	.10683	.33325	5.4800	7.3465	2.0589	1.4930	.87523	1.1086	.26380	.90143	4.7956
Stddev	.00016	.00035	.00035	.00026	.0077	.0090	.0017	.0013	.00038	.0009	.00023	.00143	.0013
%RSD	.07598	.24076	.32941	.07825	.14102	.12201	.08393	.08429	.04302	.07997	.08717	.15853	.02732

#1	.21086	.14670	.10658	.33343	5.4854	7.3529	2.0601	1.4939	.87496	1.1080	.26364	.90042	4.7965
#2	.21109	.14720	.10708	.33307	5.4745	7.3402	2.0576	1.4921	.87550	1.1092	.26396	.90244	4.7946

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	Sb2068	Se1960	Si2881	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2.3560	.64707	1.0679	.62478	2.2151	.76271	.08488	.49403	.22025	.11601	.35751	.30391	11.395
Stddev	.0029	.00108	.0005	.00082	.0023	.00055	.00000	.00007	.00031	.00021	.00038	.00034	.032
%RSD	.12181	.16706	.04874	.13057	.10334	.07209	.00298	.01373	.14164	.17675	.10494	.11280	.27859

#1	2.3580	.64631	1.0675	.62536	2.2167	.76232	.08488	.49398	.22003	.11587	.35725	.30415	11.417
#2	2.3539	.64784	1.0682	.62421	2.2134	.76310	.08489	.49408	.22047	.11616	.35778	.30367	11.372

Elem	Ti3349	Tl1908	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.27273	.24044	.18909	.02962	.36166
Stddev	.00014	.00019	.00067	.00002	.00190
%RSD	.05054	.08044	.35490	.07078	.52656

#1	.27282	.24030	.18862	.02964	.36301
#2	.27263	.24057	.18957	.02961	.36032

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5684.0	78693.	5041.6
Stddev	6.3	36.	15.6
%RSD	.11019	.04609	.30939

#1	5688.5	78667.	5030.6
#2	5679.6	78718.	5052.6

Sample Name: IC2 Acquired: 6/15/2015 10:10:46 Type: Cal
 Method: 6500_026(v12) Mode: IR Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Al3092	Bi2230	Fe2714	Na8183	S_1820	Th2837	U_3701
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5.2032	.24009	.88548	3.0968	.25657	.45729	.08038
Stddev	.0068	.00126	.00274	.0104	.00045	.00008	.00052
%RSD	.13093	.52479	.30972	.33548	.17492	.01659	.64763
#1	5.2080	.23920	.88742	3.1042	.25625	.45734	.08075
#2	5.1983	.24099	.88354	3.0895	.25688	.45723	.08001
Int. Std.	Y_2243	Y_3600	Y_3774				
Units	Cts/S	Cts/S	Cts/S				
Avg	5569.9	76474.	5009.0				
Stddev	.3	16.	10.4				
%RSD	.00622	.02139	.20827				
#1	5570.1	76463.	5001.6				
#2	5569.6	76486.	5016.3				

Sample Name: s1-3330456 Acquired: 6/15/2015 10:13:27 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0024	1.0203	2.0062	.99234	1.0118	.99937	-.09508	10.076	.99669	1.0077	1.0053	1.0096	5.0523
Stddev	.0033	.0018	.0010	.00222	.0027	.00176	.00037	.001	.00029	.0004	.0009	.0009	.0183
%RSD	.32621	.17512	.05142	.22392	.26605	.17592	.38834	.00588	.02873	.04045	.09182	.09124	.36208

#1	1.0047	1.0215	2.0055	.99391	1.0099	.99812	-.09482	10.076	.99689	1.0080	1.0060	1.0089	5.0393
#2	1.0000	1.0190	2.0069	.99077	1.0137	1.0006	-.09534	10.076	.99648	1.0074	1.0047	1.0102	5.0652

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	100.30	2.0187	40.233	1.0060	1.0082	10.199	9.8852	1.0078	2.0141	2.0100	-.01922	2.0035	2.0052
Stddev	.05	.0037	.017	.0007	.0003	.063	.6170	.0010	.0005	.0005	.00083	.0037	.0011
%RSD	.04555	.18586	.04332	.07251	.03229	.61822	6.2415	.09819	.02551	.02511	4.3287	.18505	.05278

#1	100.27	2.0161	40.246	1.0054	1.0080	10.154	10.321	1.0085	2.0137	2.0104	-.01863	2.0062	2.0059
#2	100.33	2.0214	40.221	1.0065	1.0084	10.243	9.4489	1.0071	2.0145	2.0097	-.01980	2.0009	2.0044

Check ?	Chk Pass	None	Chk Pass	Chk Pass									
Value													
Range													

Elem	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.035	2.0171	1.0102	.03422	1.0066	2.0057	.00776	.99685	1.0220	1.0062
Stddev	.054	.0003	.0017	.00018	.0010	.0026	.01516	.00260	.0005	.0013
%RSD	.54267	.01430	.16729	.53359	.09864	.12932	195.27	.26091	.04978	.12984

#1	9.9967	2.0173	1.0090	.03410	1.0073	2.0075	.01849	.99501	1.0224	1.0053
#2	10.074	2.0169	1.0114	.03435	1.0059	2.0038	-.00296	.99869	1.0217	1.0071

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5729.7	79603.	4996.2
Stddev	8.3	149.	2.5
%RSD	.14478	.18736	.04918

#1	5723.8	79498.	4998.0
#2	5735.5	79708.	4994.5

Sample Name: s2-3323226 Acquired: 6/15/2015 10:15:52 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00327	100.91	.00070	.00695	.00100	-.00004	1.9816	.03232	-.00260	.00238	.00034	.03080	101.37
Stddev	.00026	.19	.00184	.00004	.00014	.00009	.0046	.00592	.00008	.00040	.00026	.00075	.17
%RSD	7.9279	.18834	261.80	.54417	14.068	201.70	.23092	18.310	3.0615	16.930	77.340	2.4278	.17118

#1	-.00345	101.04	-.00060	.00692	.00110	-.00011	1.9848	.02814	-.00265	.00210	.00053	.03027	101.49
#2	-.00309	100.77	.00201	.00698	.00090	.00002	1.9783	.03651	-.00254	.00267	.00016	.03133	101.25

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00440	-.00054	-.00160	.00286	-.00174	502.57	.00394	.01231	-.00172	10.028	.03649	.01816	.02388
Stddev	.01504	.00347	.00475	.00004	.00029	1.41	.00022	.00271	.00018	.024	.00274	.00601	.00912
%RSD	341.99	645.01	296.33	1.4522	16.373	.28040	5.6777	21.970	10.215	.24092	7.5065	33.100	38.206

#1	.01504	.00191	.00176	.00283	-.00195	503.57	.00378	.01040	-.00184	10.045	.03456	.01391	.01743
#2	-.00624	-.00299	-.00496	.00289	-.00154	501.57	.00410	.01423	-.00160	10.011	.03843	.02241	.03033

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00140	.00093	9.8989	.00537	-.00074	19.863	.00340	.00351	.39287
Stddev	.00014	.00002	.0005	.00017	.00075	.001	.00013	.00014	.00215
%RSD	9.9983	2.5848	.00487	3.1440	101.43	.00525	3.7736	3.9101	.54753

#1	.00130	.00091	9.8985	.00549	-.00021	19.862	.00349	.00342	.39439
#2	.00150	.00094	9.8992	.00525	-.00127	19.864	.00331	.00361	.39135

Check ?	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5570.7	76904.	4966.5
Stddev	4.7	58.	4.5
%RSD	.08514	.07508	.09122

#1	5574.1	76944.	4963.3
#2	5567.4	76863.	4969.7

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0099	40.939	-0.0322	.00196	.00016	.00009	W .54229	.01141	-0.0056	.00062	.00026	.00972
Stddev	.00057	.129	.00281	.00007	.00013	.00008	.00001	.00733	.00007	.00003	.00008	.00013
%RSD	58.006	.31403	87.425	3.3424	79.261	94.840	.00116	64.217	12.054	4.6785	31.377	1.3527

#1	-0.0058	40.848	-0.0123	.00200	.00025	.00003	.54230	.00623	-0.0060	.00064	.00020	.00962
#2	-0.0140	41.030	-0.0521	.00191	.00007	.00015	.54229	.01659	-0.0051	.00060	.00032	.00981

Check ?	None	Chk Pass	None	None	None	None	Chk Warn	None	None	None	None	None
Value							.50000					
Range							5.0000%					

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	81.053	-0.13957	-0.0143	.00434	.00124	-0.0097	41.754	.00310	.00218	-0.00109	3.8475	.00918
Stddev	.053	.00268	.00050	.00365	.00006	.00003	.299	.00013	.00007	.00172	.0029	.00009
%RSD	.06590	1.9187	34.779	83.990	4.5217	2.9180	.71646	4.2836	3.1496	157.78	.07529	.95613

#1	81.091	-0.14146	-0.0179	.00176	.00120	-0.0099	41.542	.00301	.00223	.00013	3.8495	.00912
#2	81.016	-0.13767	-0.0108	.00692	.00128	-0.0095	41.965	.00320	.00213	-0.00231	3.8454	.00925

Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None
Value												
Range												

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0069	-0.1367	.00028	.00024	W 2.8405	.00153	-0.0031	5.0702	.00068	-0.00108	.11297
Stddev	.00155	.01099	.00015	.00000	.0003	.00031	.00194	.0120	.00034	.00028	.00119
%RSD	224.89	80.368	55.396	.74561	.01195	20.512	634.72	.23607	50.782	25.734	1.0576

#1	-0.0179	-0.00590	.00017	.00024	2.8407	.00175	.00106	5.0618	.00092	-0.00088	.11213
#2	.00041	-0.02144	.00038	.00024	2.8403	.00130	-0.00167	5.0787	.00043	-0.00127	.11382

Check ?	None	None	None	None	Chk Warn	None	None	Chk Pass	None	None	None
Value					3.0000						
Range					-5.0000%						

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6021.8	82950.	5075.0
Stddev	.6	37.	7.1
%RSD	.00979	.04453	.13977

#1	6022.2	82924.	5080.0
#2	6021.3	82976.	5069.9

Sample Name: icv-3325500 Acquired: 6/15/2015 10:29:59 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.25952	.26089	.24166	.24686	.24868	.24323	-.02397	2.0016	.25232	.24853	.24400	.25128	.24172
Stddev	.00035	.00115	.00062	.00105	.00091	.00073	.00228	.0093	.00002	.00064	.00058	.00051	.00188
%RSD	.13345	.44066	.25690	.42401	.36575	.30217	9.5086	.46405	.00915	.25760	.23860	.20172	.77950

#1	.25977	.26008	.24210	.24760	.24933	.24375	-.02558	2.0081	.25230	.24899	.24441	.25093	.24306
#2	.25928	.26170	.24122	.24612	.24804	.24271	-.02236	1.9950	.25233	.24808	.24358	.25164	.24039

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	19.839	.24843	10.292	.25028	.24557	1.9513	.24913	1.9951	.25228	-.00308	.24813	.48956	2.0215
Stddev	.113	.00131	.015	.00016	.00013	.0210	.00020	.0069	.00081	.00080	.00059	.00155	.0245
%RSD	.56932	.52595	.15044	.06501	.05283	1.0752	.08224	.34506	.32289	26.074	.23585	.31716	1.2133

#1	19.919	.24935	10.303	.25039	.24566	1.9661	.24928	1.9999	.25171	-.00251	.24771	.49066	2.0388
#2	19.759	.24750	10.281	.25016	.24547	1.9364	.24899	1.9902	.25286	-.00365	.24854	.48847	2.0041

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass								
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50781	.24746	.01050	.24849	.51427	-.00576	.24287	.24535	.24689
Stddev	.00051	.00108	.00203	.00079	.00113	.03140	.00098	.00032	.00049
%RSD	.10041	.43548	19.372	.31718	.22001	545.37	.40184	.13045	.19743

#1	.50817	.24822	.00906	.24793	.51507	.01645	.24356	.24558	.24723
#2	.50745	.24670	.01193	.24905	.51347	-.02796	.24218	.24513	.24654

Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5951.7	82709.	5129.2
Stddev	1.5	234.	26.9
%RSD	.02452	.28323	.52430

#1	5952.7	82543.	5110.2
#2	5950.6	82874.	5148.2

Sample Name: icvl-3331245 Acquired: 6/15/2015 10:32:42 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01055	.11151	.01677	.10102	.01046	.00105	W .12472	.22061	.00532	.01050	.01054	.01646
Stddev	.00044	.00020	.00342	.00017	.00002	.00008	.00409	.00014	.00012	.00005	.00013	.00022
%RSD	4.1736	.18229	20.409	.16641	.21154	7.8954	3.2827	.06269	2.1678	.49301	1.2318	1.3437

#1	.01024	.11166	.01919	.10114	.01047	.00111	.12761	.22051	.00523	.01047	.01064	.01662
#2	.01086	.11137	.01435	.10090	.01044	.00099	.12182	.22071	.00540	.01054	.01045	.01630

Check ?	Chk Pass	Chk Warn	Chk Pass									
Value							.10000					
Range							20.000%					

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10358	3.0383	.01123	.22739	.01080	.02048	1.0358	.04319	2.9750	.00905	-.00014	W .01288
Stddev	.00204	.0416	.00026	.00148	.00005	.00028	.0007	.00013	.0037	.00095	.00253	.00054
%RSD	1.9665	1.3678	2.3576	.65017	.48817	1.3849	.06703	.29789	.12346	10.472	1848.5	4.2050

#1	.10214	3.0677	.01141	.22634	.01083	.02068	1.0353	.04310	2.9776	.00972	.00165	.01327
#2	.10502	3.0089	.01104	.22843	.01076	.02028	1.0363	.04328	2.9724	.00838	-.00193	.01250

Check ?	Chk Pass	None	Chk Warn									
Value												.01000
Range												20.000%

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01205	.52098	.10493	.01047	.01552	.01010	.01682	.06339	.00919	.02117	.01605
Stddev	.00214	.02664	.00028	.00001	.00148	.00005	.00108	.03079	.00090	.00001	.00072
%RSD	17.723	5.1131	.26264	.12795	9.5599	.47933	6.4117	48.567	9.8069	.06496	4.4813

#1	.01054	.50214	.10512	.01046	.01447	.01013	.01605	.08516	.00855	.02116	.01554
#2	.01356	.53981	.10473	.01048	.01657	.01006	.01758	.04162	.00983	.02118	.01655

Check ?	Chk Pass										
Value											
Range											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6026.3	83880.	5136.0
Stddev	8.1	81.	6.6
%RSD	.13371	.09668	.12763

#1	6020.6	83937.	5140.6
#2	6032.0	83823.	5131.3

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0156	50.235	-0.00270	.00393	.00070	.00014	1.0093	.01486	-0.00115	.00096	.00028	.01632	50.237
Stddev	.00019	.136	.00020	.00017	.00026	.00001	.0024	.00566	.00004	.00000	.00003	.00056	.137
%RSD	12.203	.27013	7.2304	4.2508	37.417	9.4335	.23772	38.096	3.1965	.49816	11.881	3.4603	.27314

#1	-0.0169	50.139	-0.00284	.00405	.00052	.00013	1.0076	.01887	-0.00113	.00096	.00031	.01672	50.334
#2	-0.0142	50.331	-0.00256	.00381	.00089	.00015	1.0110	.01086	-0.00118	.00097	.00026	.01592	50.140

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.16622	-0.00187	.00226	.00134	-0.00165	252.65	.00197	.00644	-0.00013	4.9213	.01387	.00286	.02417
Stddev	.12563	.00014	.00237	.00003	.00031	.52	.00055	.00079	.00121	.0064	.00035	.00296	.01218
%RSD	75.578	7.3308	104.52	1.9354	18.628	.20508	28.134	12.311	896.41	.12971	2.5394	103.53	50.410

#1	-0.07739	-0.00197	.00394	.00132	-0.00143	252.29	.00236	.00588	.00072	4.9167	.01362	.00077	.03279
#2	-0.25506	-0.00177	.00059	.00136	-0.00187	253.02	.00158	.00700	-0.00099	4.9258	.01412	.00495	.01555

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00034	.00057	4.8888	.00223	.00048	9.9678	.00188	-0.00106	.19261
Stddev	.00026	.00015	.0004	.00077	.00008	.0137	.00020	.00010	.00139
%RSD	75.589	25.983	.00823	34.563	16.556	.13704	10.852	9.5566	.72376

#1	-0.00016	.00046	4.8891	.00277	.00043	9.9775	.00203	-0.00099	.19359
#2	-0.00052	.00067	4.8885	.00168	.00054	9.9582	.00174	-0.00113	.19162

Check ?	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5744.2	78758.	5040.0
Stddev	4.9	61.	5.0
%RSD	.08499	.07695	.09860

#1	5740.7	78801.	5036.5
#2	5747.6	78715.	5043.5

Sample Name: ccv-3330457 Acquired: 6/15/2015 10:37:54 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50175	.51729	.98298	.49679	.51505	.49656	-.04792	5.0535	.50417	.50436	.49928	.50628	2.5061
Stddev	.00107	.00089	.00484	.00037	.00181	.00090	.00221	.0077	.00058	.00026	.00076	.00042	.0098
%RSD	.21272	.17158	.49212	.07443	.35083	.18186	4.6094	.15248	.11430	.05213	.15220	.08222	.38997

#1	.50100	.51792	.97956	.49653	.51633	.49720	-.04948	5.0590	.50457	.50454	.49874	.50599	2.5130
#2	.50250	.51667	.98640	.49705	.51377	.49592	-.04636	5.0481	.50376	.50417	.49981	.50658	2.4992

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.410	1.0181	20.181	.50203	.49942	5.0591	.50393	.98523	1.0188	-.01358	1.0001	.99084	5.0245
Stddev	.155	.0010	.025	.00042	.00043	.0163	.00099	.00069	.0044	.00098	.0015	.00407	.0478
%RSD	.31461	.09799	.12455	.08400	.08677	.32138	.19640	.06992	.43615	7.1929	.15119	.41091	.95152

#1	49.520	1.0188	20.163	.50174	.49973	5.0706	.50463	.98571	1.0156	-.01427	.99906	.98796	5.0583
#2	49.300	1.0174	20.199	.50233	.49912	5.0476	.50323	.98474	1.0219	-.01289	1.0012	.99372	4.9907

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass								
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0028	.50426	.01723	.50096	1.0277	.06353	.49174	.49850	.50188
Stddev	.0045	.00181	.00175	.00029	.0010	.01386	.00126	.00213	.00199
%RSD	.44364	.35963	10.169	.05710	.09693	21.822	.25670	.42807	.39627

#1	.99960	.50555	.01599	.50117	1.0284	.05373	.49084	.49699	.50329
#2	1.0059	.50298	.01847	.50076	1.0270	.07333	.49263	.50001	.50047

Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5894.0	81909.	5078.9
Stddev	11.7	279.	12.8
%RSD	.19907	.34031	.25244

#1	5885.7	81712.	5069.8
#2	5902.3	82106.	5088.0

Sample Name: ICB Acquired: 6/15/2015 10:40:21 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0048	.00129	.00178	.00098	.00028	.00021	.00381	.00998	.00006	.00006	-0.00012
Stddev	.00012	.00048	.00063	.00057	.00040	.00005	.00072	.00184	.00005	.00011	.00005
%RSD	25.652	36.976	35.463	58.694	144.78	21.856	18.845	18.472	73.057	172.17	43.758

#1	-0.00039	.00095	.00223	.00057	-0.00001	.00024	.00330	.01128	.00010	.00014	-0.00008
#2	-0.00057	.00163	.00134	.00138	.00056	.00018	.00432	.00868	.00003	-0.00001	-0.00016

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass					
High Limit											
Low Limit											

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00074	.00251	-0.13918	.00115	-0.00066	.00006	.00105	-0.06369	-0.00015	-0.00059	-0.00006
Stddev	.00013	.00011	.01918	.00070	.00241	.00001	.00049	.00138	.00015	.00002	.00098
%RSD	17.249	4.4315	13.781	60.856	363.52	23.214	47.098	2.1612	101.88	3.1244	1514.3

#1	.00083	.00243	-0.12561	.00165	-0.00237	.00007	.00070	-0.06466	-0.00025	-0.00057	.00063
#2	.00065	.00259	-0.15274	.00066	.00104	.00005	.00140	-0.06271	-0.00004	-0.00060	-0.00076

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00469	.00110	.00305	.02184	-0.00087	.00002	.00089	-0.00009	.00091	.00565	W -0.00119
Stddev	.00262	.00028	.00032	.00285	.00002	.00002	.00098	.00019	.00055	.01140	.00020
%RSD	55.902	25.598	10.628	13.047	2.1811	133.38	110.82	218.10	60.038	201.65	16.599

#1	-0.00284	.00090	.00283	.01983	-0.00088	.00003	.00158	.00005	.00052	-0.00241	-0.00105
#2	-0.00655	.00130	.00328	.02386	-0.00085	.00000	.00019	-0.00022	.00130	.01371	-0.00132

Check ?	None	Chk Pass	Chk Warn								
High Limit											.00111
Low Limit											-0.00111

Elem	Zn2062	Zr3391
Units	ppm	ppm
Avg	F .01132	.00065
Stddev	.00015	.00108
%RSD	1.3578	164.42
#1	.01121	.00141
#2	.01143	-0.00011

Check ?	Chk Fail	Chk Pass
High Limit	.00906	
Low Limit	-0.00906	

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6072.3	85027.	5103.1
Stddev	11.1	66.	22.4
%RSD	.18254	.07760	.43858
#1	6080.1	84980.	5118.9
#2	6064.4	85073.	5087.3

Sample Name: ICB Acquired: 6/15/2015 10:49:10 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0050	-0.0014	-0.00227	-0.00030	.00021	.00007	.00544	.00032	.00010	-0.0017	.00005	.00068	.00062
Stddev	.00053	.00067	.00228	.00061	.00009	.00004	.00108	.00080	.00017	.00009	.00011	.00011	.00205
%RSD	104.61	483.93	100.43	205.25	41.607	65.970	19.823	253.49	169.85	56.412	200.34	16.014	333.74

#1	-0.0013	-0.00061	-0.00388	.00013	.00028	.00004	.00468	-0.00025	-0.00002	-0.00010	-0.00002	.00076	-0.00084
#2	-0.00087	.00033	-0.00066	-0.00073	.00015	.00010	.00620	.00089	.00022	-0.00023	.00013	.00060	.00207

Check ?	Chk Pass	None	Chk Pass										
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.09692	-0.00230	.00602	-0.00003	.00008	-0.08527	-0.00024	-0.00328	.00012	-0.00588	-0.00298	.00115	-0.00729
Stddev	.06516	.00052	.00396	.00004	.00022	.00137	.00033	.00058	.00080	.00365	.00019	.00318	.02550
%RSD	67.229	22.530	65.774	141.69	272.80	1.6032	140.27	17.624	642.28	62.016	6.4541	276.69	349.66

#1	-0.05085	-0.00193	.00882	-0.00006	-0.00007	-0.08431	-0.00047	-0.00368	.00069	-0.00330	-0.00312	-0.00110	.01074
#2	-0.14299	-0.00267	.00322	.00000	.00024	-0.08624	-0.00000	-0.00287	-0.00044	-0.00846	-0.00284	.00339	-0.02533

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass								
High Limit													
Low Limit													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00012	.00005	-0.00313	.00025	-0.00078	.03260	-0.00091	.00074	-0.00044
Stddev	.00033	.00008	.00036	.00002	.00013	.00659	.00006	.00058	.00104
%RSD	272.48	150.55	11.355	7.7813	16.569	20.201	6.2141	78.824	234.59

#1	.00036	.00010	-0.00338	.00026	-0.00069	.02795	-0.00087	.00115	.00029
#2	-0.00011	-0.00000	-0.00288	.00023	-0.00087	.03726	-0.00095	.00033	-0.00118

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5968.3	82862.	4995.6
Stddev	2.6	80.	5.4
%RSD	.04387	.09700	.10801

#1	5970.1	82805.	4999.4
#2	5966.4	82919.	4991.8

Sample Name: cri-3331249 Acquired: 6/15/2015 10:53:20 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01034	.10673	W .00763	.09732	.00522	.00102	W .12092	.21588	.00519	.00485	.00991	.01090
Stddev	.00107	.00029	.00377	.00094	.00026	.00001	.00014	.00109	.00005	.00024	.00015	.00008
%RSD	10.316	.27632	49.374	.96642	5.0096	1.1417	.11974	.50364	1.0396	5.0520	1.4725	.72882

#1	.00959	.10694	.00497	.09799	.00541	.00101	.12082	.21665	.00523	.00502	.01002	.01085
#2	.01110	.10652	.01030	.09666	.00504	.00103	.12103	.21511	.00515	.00467	.00981	.01096

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			.01000				.10000					
Range			-20.000%				20.000%					

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02996	.90538	.00867	.21188	.00314	.00990	.96341	.01020	.96022	.00269	.09257	.00966
Stddev	.00277	.10369	.00115	.00079	.00001	.00020	.01091	.00006	.00413	.00076	.00139	.00052
%RSD	9.2619	11.452	13.303	.37483	.33090	2.0003	1.1322	.62483	.43002	28.232	1.5055	5.3468

#1	.03192	.97869	.00785	.21244	.00314	.01004	.97112	.01025	.95730	.00323	.09356	.01003
#2	.02799	.83206	.00948	.21132	.00315	.00976	.95570	.01016	.96314	.00216	.09159	.00930

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .00726	.48676	.01934	.00504	W .01409	.00985	.01046	W .03506	.00925	.00847	.00905
Stddev	.00286	.02316	.00019	.00005	.00168	.00020	.00032	.00819	.00014	.00015	.00082
%RSD	39.445	4.7585	.96112	.96278	11.910	2.0490	3.0475	23.352	1.4696	1.7925	9.0877

#1	.00523	.50314	.01947	.00508	.01291	.01000	.01068	.04085	.00935	.00836	.00963
#2	.00928	.47038	.01921	.00501	.01528	.00971	.01023	.02927	.00915	.00858	.00847

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
Value	.01000				.01000			.06000			
Range	-20.000%				20.000%			-20.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5994.1	83500.	5088.0
Stddev	6.5	160.	42.2
%RSD	.10836	.19177	.82851

#1	5998.7	83386.	5058.2
#2	5989.5	83613.	5117.9

Sample Name: cri- Acquired: 6/15/2015 11:03:43 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00046	.00065	.00891	.00034	-0.00016	.00004	.11681	.00877	.00003
Stddev	.00019	.00002	.00064	.00073	.00008	.00015	.00450	.00070	.00018
%RSD	41.667	2.6707	7.1745	215.51	47.594	385.75	3.8499	8.0057	688.18
#1	-0.00033	.00063	.00846	.00086	-0.00021	-0.00007	.11999	.00926	-0.00010
#2	-0.00060	.00066	.00937	-0.00018	-0.00011	.00014	.11363	.00827	.00015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00002	-0.00005	.00073	.00064	-0.05326	.00064	.00244	.00001	.00019
Stddev	.00032	.00006	.00052	.00180	.00344	.00153	.00176	.00004	.00004
%RSD	1842.9	118.68	71.565	280.38	6.4633	238.75	72.325	339.23	19.043
#1	.00021	-0.00010	.00110	-0.00063	-0.05083	-0.00044	.00369	-0.00002	.00017
#2	-0.00024	-0.00001	.00036	.00191	-0.05570	.00173	.00119	.00004	.00022
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.08229	-0.00012	.00039	.00075	-0.00641	-0.00032	.01109	.00478	-0.00016
Stddev	.00290	.00036	.00004	.00137	.00274	.00026	.00005	.00557	.00026
%RSD	3.5257	295.27	11.471	183.57	42.764	80.118	.40612	116.40	163.43
#1	-0.08024	.00013	.00042	-0.00022	-0.00835	-0.00014	.01112	.00872	-0.00034
#2	-0.08434	-0.00038	.00035	.00172	-0.00447	-0.00050	.01106	.00085	.00002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00000	.01274	.00004	-0.00064	.01612	-0.00048	-0.00208	-0.00077
Stddev	.00004	.00152	.00043	.00113	.05215	.00026	.00012	.00135
%RSD	4908.3	11.897	1123.0	176.86	323.63	54.688	5.6342	175.29
#1	-0.00003	.01167	.00034	-0.00143	.05299	-0.00029	-0.00199	-0.00172
#2	.00003	.01381	-0.00027	.00016	-0.02076	-0.00066	-0.00216	.00018
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5917.8	83365.	5022.1
Stddev	20.6	187.	14.1
%RSD	.34825	.22378	.28154
#1	5903.3	83234.	5012.1
#2	5932.4	83497.	5032.0

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0091	513.09	.00236	F .00398	.00048	.00016	-0.01466	477.57	.00038	-0.00059	F .00248
Stddev	.00007	.06	.00285	.00020	.00002	.00007	.00078	1.50	.00002	.00017	.00027
%RSD	7.9188	.01169	120.67	4.9048	3.5739	45.286	5.3339	.31477	4.3657	28.031	10.772

#1	-0.00086	513.13	.00438	.00384	.00047	.00021	-0.01411	476.51	.00039	-0.00047	.00229
#2	-0.00096	513.05	.00035	.00412	.00049	.00011	-0.01521	478.64	.00037	-0.00071	.00267

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit				.00312							.00123
Low Limit				-.00312							-.00132

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .00352	192.75	W -.25951	W -.00299	516.79	F .00145	-0.00133	-0.03754	F .00758	-0.00507	.00041
Stddev	.00006	.11	.01239	.00216	.21	.00010	.00024	.00499	.00001	.00334	.00292
%RSD	1.7618	.05464	4.7760	72.372	.04030	7.1692	17.862	13.292	.12450	65.921	720.97

#1	.00356	192.67	-.26827	-.00146	516.65	.00137	-.00150	-.04106	.00758	-.00271	-.00166
#2	.00348	192.82	-.25074	-.00451	516.94	.00152	-.00116	-.03401	.00757	-.00744	.00247

Check ?	Chk Fail	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit	.00272		.23700	.00261		.00051			.00258		
Low Limit	-.00272		-.23700	-.00261		-.00051			-.00258		

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.13640	F .00630	-0.00450	.03515	-0.00137	F .00464	.00507	.00010	.00198	-0.01283	W .00125
Stddev	.00004	.00259	.00072	.00161	.00029	.00006	.00223	.00017	.00222	.02412	.00020
%RSD	.02884	41.103	15.965	4.5710	21.249	1.1865	43.975	179.56	111.89	187.97	16.127

#1	-.13637	.00813	-.00399	.03402	-.00117	.00467	.00665	.00022	.00355	-.02989	.00111
#2	-.13643	.00447	-.00501	.03629	-.00158	.00460	.00349	-.00003	.00041	.00422	.00139

Check ?	None	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Warn
High Limit		.00628				.00060					.00111
Low Limit		-.00628				-.00060					-.00111

Elem	Zn2062	Zr3391
Units	ppm	ppm
Avg	.00234	-0.00037
Stddev	.00013	.00049
%RSD	5.7174	131.28

#1	.00243	-.00003
#2	.00224	-.00071

Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5251.3	70579.	4909.1
Stddev	13.6	166.	.6
%RSD	.25957	.23463	.01140

#1	5261.0	70462.	4909.5
#2	5241.7	70696.	4908.7

Sample Name: icsab-3290308 Acquired: 6/15/2015 11:14:17 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0819	507.72	1.9059	1.8786	.52441	.48535	.91711	472.27	1.0307	.45868	.48198	.52639	190.23	48.858
Stddev	.0020	.34	.0045	.0030	.00037	.00057	.00049	5.21	.0021	.00037	.00171	.00066	.13	.031
%RSD	.18591	.06652	.23402	.15753	.07093	.11759	.05387	1.1030	.19841	.07970	.35566	.12448	.06789	.06255
#1	1.0805	507.96	1.9027	1.8807	.52415	.48494	.91676	475.95	1.0322	.45894	.48319	.52593	190.32	48.879
#2	1.0833	507.48	1.9090	1.8765	.52468	.48575	.91746	468.58	1.0293	.45842	.48077	.52685	190.13	48.836

Check ?	Chk Pass													
Value														
Range														

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0018	514.08	.50655	.93358	50.571	.92693	1.8974	.92251	.84761	.94181	4.5977	10.747	8.9814	.97064
Stddev	.0003	.36	.00007	.00275	.515	.00330	.0033	.00568	.00816	.00288	.0036	.005	.0267	.00088
%RSD	.02943	.06925	.01412	.29474	1.0181	.35628	.17320	.61603	.96299	.30607	.07827	.04433	.29759	.09034
#1	1.0020	513.83	.50650	.93553	50.935	.92926	1.8997	.92653	.85338	.94384	4.6003	10.750	9.0003	.97126
#2	1.0016	514.33	.50660	.93163	50.207	.92459	1.8950	.91849	.84183	.93977	4.5952	10.743	8.9625	.97002

Check ?	Chk Pass													
Value														
Range														

Elem	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9840	1.0097	8.3724	.04228	.51087	1.0082	1.0449
Stddev	.0030	.0001	.0310	.04625	.00037	.0013	.0029
%RSD	.15248	.00473	.37046	109.38	.07236	.13208	.27502
#1	1.9861	1.0097	8.3944	.07499	.51061	1.0092	1.0469
#2	1.9818	1.0097	8.3505	.00958	.51113	1.0073	1.0428

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5261.7	70101.	4933.2
Stddev	24.2	234.	8.2
%RSD	.45949	.33325	.16711
#1	5244.6	69936.	4939.0
#2	5278.8	70266.	4927.3

Sample Name: LRA-3255707 Acquired: 6/15/2015 11:17:09 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F_00274	-0.03477	9.5126	9.4363	12.452	.00277	-1.0579	.03619	2.0719	4.9445	9.9477	10.432
Stddev	.00035	.00056	.0115	.0040	.031	.00015	.0026	.00398	.0012	.0021	.0032	.020
%RSD	12.886	1.6215	.12096	.04225	.25231	5.3307	.24402	11.003	.05724	.04255	.03181	.18887

#1	.00249	-.03517	9.5208	9.4391	12.474	.00266	-1.0598	.03900	2.0728	4.9459	9.9499	10.418
#2	.00299	-.03437	9.5045	9.4335	12.429	.00287	-1.0561	.03337	2.0711	4.9430	9.9455	10.446

Check ?	Chk Fail	None	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	2.0000											
Range	-10.000%											

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	520.59	-52210	-0.00074	.00586	9.7328	4.9331	-0.06703	9.9808	-0.01075	10.301	-1.1491	-0.09170
Stddev	.91	.04755	.00060	.00078	.0020	.0061	.01229	.0067	.00024	.007	.00309	.00154
%RSD	.17391	9.1074	81.432	13.337	.02028	.12288	18.338	.06678	2.2502	.06441	2.6894	1.6770

#1	521.23	-.55572	-.00031	.00641	9.7342	4.9374	-.07572	9.9855	-.01092	10.305	-.11273	-.09061
#2	519.95	-.48848	-.00117	.00530	9.7314	4.9289	-.05834	9.9760	-.01058	10.296	-.11710	-.09279

Check ?	Chk Pass	None	None	None	Chk Pass	None	None	Chk Pass	None	Chk Pass	None	None
Value												
Range												

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.7707	48.289	.02816	9.8226	.35172	10.006	5.0448	.15487	9.6793	9.7562	-0.01658
Stddev	.0004	.142	.00020	.0821	.00347	.006	.0037	.01063	.0035	.0188	.00156
%RSD	.00738	.29389	.69514	.83581	.98544	.06485	.07431	6.8626	.03634	.19237	9.3819

#1	4.7704	48.189	.02802	9.8807	.35417	10.001	5.0475	.14736	9.6768	9.7429	-.01548
#2	4.7709	48.390	.02830	9.7646	.34927	10.011	5.0422	.16239	9.6818	9.7694	-.01768

Check ?	None	None	None	Chk Pass	None	Chk Pass	None	None	Chk Pass	Chk Pass	None
Value											
Range											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5769.3	81321.	5024.6
Stddev	.3	374.	19.4
%RSD	.00601	.46034	.38541

#1	5769.0	81586.	5010.9
#2	5769.5	81057.	5038.3

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0098	50.257	.00266	.02253	.00060	.00003	.99565	.01747	-0.00137	.00124	.00048	.01720	50.966
Stddev	.00001	.178	.00512	.00219	.00026	.00009	.00519	.00103	.00023	.00039	.00013	.00024	.108
%RSD	1.0977	.35409	192.94	9.7429	42.790	351.16	.52082	5.9098	16.962	31.700	28.219	1.4046	.21130

#1	-0.0099	50.131	.00628	.02408	.00078	-0.0004	.99932	.01674	-0.00154	.00151	.00057	.01737	50.890
#2	-0.0097	50.383	-0.0097	.02097	.00042	.00009	.99198	.01820	-0.00121	.00096	.00038	.01702	51.043

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-1.0235	.00039	.00295	.00161	.00503	252.70	.00220	.00722	-0.00035	4.8952	.01474	.01118	.04486
Stddev	.01978	.00209	.00159	.00007	.00047	.71	.00027	.00105	.00023	.0043	.00072	.00134	.00143
%RSD	19.331	538.66	53.996	4.5482	9.4334	.27992	12.090	14.519	64.441	.08802	4.8537	12.017	3.1857

#1	-0.8836	.00187	.00407	.00156	.00469	252.20	.00239	.00648	-0.00019	4.8921	.01423	.01023	.04385
#2	-1.11634	-0.00109	.00182	.00166	.00536	253.20	.00201	.00796	-0.00051	4.8982	.01524	.01213	.04587

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00060	.00057	4.8398	.00335	.00049	9.8383	.00174	-0.00093	.20152
Stddev	.00069	.00012	.0148	.00037	.00058	.0937	.00025	.00052	.00125
%RSD	113.67	20.317	.30663	11.078	118.13	.95213	14.338	55.881	.62005

#1	.00012	.00049	4.8293	.00361	.00008	9.9045	.00192	-0.00056	.20063
#2	.00109	.00066	4.8503	.00308	.00090	9.7720	.00157	-0.00129	.20240

Check ?	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5769.8	79049.	4971.4
Stddev	6.5	96.	2.9
%RSD	.11189	.12096	.05920

#1	5774.3	79116.	4973.5
#2	5765.2	78981.	4969.3

Sample Name: ccv-3330457 Acquired: 6/15/2015 11:22:34 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49571	.51571	.97457	.50370	.52197	.49932	-.05096	5.0889	.50586	.49861	.49502	.49888	2.5044
Stddev	.00129	.00337	.00003	.00100	.00010	.00109	.00084	.0033	.00097	.00093	.00007	.00009	.0042
%RSD	.26113	.65398	.00295	.19944	.01938	.21809	1.6515	.06535	.19206	.18618	.01500	.01875	.16838

#1	.49662	.51332	.97455	.50299	.52204	.49855	-.05036	5.0913	.50517	.49796	.49496	.49881	2.5015
#2	.49479	.51809	.97459	.50441	.52190	.50009	-.05155	5.0866	.50654	.49927	.49507	.49895	2.5074

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	48.894	1.0215	20.184	.50302	.49560	5.0548	.49755	.97196	1.0203	-.01442	.99237	.97899	5.0431
Stddev	.086	.0026	.015	.00009	.00025	.0104	.00078	.00119	.0034	.00039	.00028	.00099	.0253
%RSD	.17625	.25471	.07425	.01812	.05065	.20481	.15692	.12260	.33451	2.7073	.02818	.10147	.50149

#1	48.833	1.0197	20.174	.50295	.49542	5.0622	.49700	.97112	1.0228	-.01415	.99257	.97969	5.0252
#2	48.955	1.0234	20.195	.50308	.49578	5.0475	.49810	.97280	1.0179	-.01470	.99217	.97828	5.0609

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass								
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.99557	.50420	.01715	.50434	1.0232	.02104	.48998	.50310	.49393
Stddev	.00003	.00025	.00132	.00030	.0022	.01834	.00041	.00133	.00056
%RSD	.00289	.04977	7.7093	.06036	.21859	87.157	.08301	.26432	.11425

#1	.99559	.50438	.01622	.50413	1.0216	.03400	.49026	.50404	.49353
#2	.99555	.50402	.01808	.50456	1.0248	.00807	.48969	.50216	.49433

Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5882.4	81329.	4987.0
Stddev	7.5	59.	3.8
%RSD	.12749	.07288	.07668

#1	5887.7	81371.	4989.7
#2	5877.1	81287.	4984.3

Sample Name: CCB Acquired: 6/15/2015 11:25:00 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0040	.00128	.00229	F .00862	-0.0030	.00007	.00461	.01151	.00007	-0.0008	.00005	.00028
Stddev	.00012	.00002	.00128	.00059	.00044	.00008	.00542	.00028	.00010	.00010	.00003	.00062
%RSD	29.308	1.9522	55.999	6.8052	144.73	127.33	117.65	2.4381	135.55	130.88	66.278	223.12

#1	-0.0032	.00126	.00138	.00903	.00001	.00013	.00845	.01171	.00014	-0.0015	.00008	.00072
#2	-0.0048	.00129	.00320	.00820	-0.0061	.00001	.00078	.01131	.00000	-0.0001	.00003	-0.0016

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.00312								
Low Limit				-.00312								

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0088	-0.06162	-0.00237	.00276	-0.00001	.00145	-0.07476	.00016	.00095	-0.00041	-0.00912	.00157
Stddev	.00027	.03268	.00146	.00048	.00002	.00016	.00153	.00007	.00036	.00071	.00219	.00135
%RSD	30.966	53.026	61.528	17.454	370.97	11.100	2.0419	43.605	37.498	174.01	23.949	86.096

#1	-0.0069	-.03852	-.00134	.00242	.00001	.00134	-.07368	.00021	.00070	.00009	-.00758	.00061
#2	-0.0107	-.08473	-.00340	.00311	-0.00002	.00156	-.07583	.00011	.00120	-0.00091	-.01067	.00252

Check ?	Chk Pass	None	Chk Pass									
High Limit												
Low Limit												

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .00491	.01364	-0.00030	.00006	.00007	.00055	-0.00157	.00018	-0.00070	-0.00300	.00001
Stddev	.00007	.00024	.00034	.00006	.00189	.00007	.00045	.03603	.00038	.00057	.00014
%RSD	1.5119	1.7335	113.03	97.703	2789.0	13.187	28.350	19866.	54.186	18.954	1623.2

#1	.00496	.01381	-.00006	.00002	-.00127	.00060	-.00189	.02566	-.00043	-.00260	-.00009
#2	.00485	.01347	-.00053	.00010	.00141	.00050	-.00126	-.02529	-.00097	-.00340	.00011

Check ?	Chk Warn	Chk Pass									
High Limit	.00486										
Low Limit	-.00486										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5993.4	83842.	5021.1
Stddev	3.9	19.	32.6
%RSD	.06491	.02214	.64894

#1	5996.2	83829.	4998.1
#2	5990.7	83855.	5044.2

Sample Name: CCVL3331245 Acquired: 6/15/2015 11:27:40 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01011	.11430	.01566	.10654	.01080	.00109	W .12210	.22269	.00556	.01069	.01070	.01680
Stddev	.00039	.00006	.00052	.00012	.00033	.00001	.00117	.00304	.00021	.00004	.00023	.00011
%RSD	3.8185	.05573	3.3285	.11452	3.0146	1.0390	.96154	1.3647	3.8652	.36456	2.1833	.65419

#1	.00983	.11435	.01603	.10645	.01057	.00109	.12127	.22054	.00571	.01066	.01086	.01672
#2	.01038	.11426	.01529	.10663	.01104	.00110	.12293	.22483	.00540	.01071	.01053	.01688

Check ?	Chk Pass	Chk Warn	Chk Pass									
Value							.10000					
Range							20.000%					

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10435	3.0497	.00880	.23059	.01076	.02064	1.0313	.04305	2.9544	.01003	-.00721	.00982
Stddev	.00006	.0651	.00010	.00164	.00002	.00038	.0158	.00008	.0063	.00033	.00294	.00142
%RSD	.05508	2.1351	1.1701	.71188	.21738	1.8643	1.5311	.19243	.21182	3.3161	40.778	14.496

#1	.10440	3.0036	.00872	.22943	.01074	.02037	1.0425	.04311	2.9500	.00979	-.00513	.00882
#2	.10431	3.0957	.00887	.23175	.01077	.02092	1.0201	.04299	2.9588	.01026	-.00929	.01083

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01316	.54436	.10429	.01070	.01479	.01076	.01649	F .09227	.00935	.02115	.01544
Stddev	.00016	.02214	.00131	.00003	.00042	.00050	.00033	.02817	.00034	.00046	.00173
%RSD	1.2254	4.0664	1.2535	.27114	2.8360	4.6440	1.9750	30.525	3.6037	2.1751	11.173

#1	.01304	.52871	.10522	.01068	.01508	.01040	.01626	.07236	.00959	.02147	.01666
#2	.01327	.56001	.10337	.01072	.01449	.01111	.01672	.11219	.00911	.02082	.01422

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass						
Value								.06000			
Range								30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6044.8	84193.	5047.3
Stddev	6.6	150.	2.5
%RSD	.10978	.17767	.04968

#1	6049.5	84299.	5049.0
#2	6040.1	84088.	5045.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0024	.00300	.00012	W .00582	.00002	.00010	.00368	.01983	.00023
Stddev	.00001	.00003	.00290	.00010	.00018	.00009	.00169	.00145	.00024
%RSD	6.2432	1.1500	2346.0	1.6822	971.50	87.318	45.903	7.3280	100.69

#1	-0.0023	.00303	.00218	.00589	-0.0011	.00017	.00487	.01880	.00007
#2	-0.0025	.00298	-.00193	.00575	.00014	.00004	.00248	.02086	.00040

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				.00500					
Low Limit				-.00500					

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00014	.00018	.00151	.00886	-1.2895	-0.0026	.00324	.00009	.00061
Stddev	.00007	.00005	.00012	.00052	.05834	.00033	.00083	.00003	.00019
%RSD	53.694	25.727	7.9449	5.9023	45.243	128.33	25.735	28.569	30.840

#1	.00009	.00021	.00159	.00849	-.08769	-.00002	.00383	.00007	.00048
#2	.00019	.00015	.00142	.00923	-.17020	-.00050	.00265	.00011	.00075

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.08514	-.00002	.00059	-.00113	-.00576	.00169	-.00180	.02104	-.00044
Stddev	.00657	.00016	.00018	.00085	.00119	.00068	.00059	.00253	.00040
%RSD	7.7163	815.65	31.020	74.961	20.581	40.343	32.895	12.044	89.161

#1	-.08050	-.00013	.00046	-.00053	-.00660	.00218	-.00222	.02284	-.00016
#2	-.08979	.00009	.00072	-.00173	-.00492	.00121	-.00138	.01925	-.00072

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00000	.00074	-.00012	-.00100	.00998	-.00095	-.00209	.00176
Stddev	.00007	.00105	.00014	.00052	.00036	.00031	.00010	.00314
%RSD	2149.2	141.18	116.29	51.628	3.5569	32.197	4.9863	177.89

#1	-.00004	.00000	-.00002	-.00137	.00973	-.00074	-.00216	-.00045
#2	.00005	.00149	-.00022	-.00064	.01023	-.00117	-.00202	.00398

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6047.2	84675.	5099.9
Stddev	3.5	37.	26.5
%RSD	.05823	.04330	.51971

#1	6044.7	84701.	5081.2
#2	6049.7	84649.	5118.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05037	1.9829	.97343	1.0155	2.1146	.05094	2.0298	51.030	.10192
Stddev	.00009	.0001	.00568	.0011	.0050	.00016	.0023	.095	.00064
%RSD	.18229	.00753	.58400	.11036	.23646	.30711	.11427	.18545	.62595

#1	.05043	1.9828	.97745	1.0147	2.1181	.05105	2.0282	51.097	.10147
#2	.05030	1.9830	.96941	1.0163	2.1111	.05083	2.0314	50.963	.10237

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49330	.19895	.25563	1.0064	49.898	1.0292	50.377	.50463	1.0351
Stddev	.00043	.00010	.00001	.0010	.005	.0007	.021	.00029	.0021
%RSD	.08684	.04984	.00274	.09770	.00989	.07186	.04201	.05734	.20061

#1	.49300	.19888	.25564	1.0057	49.901	1.0286	50.392	.50484	1.0366
#2	.49360	.19902	.25563	1.0071	49.894	1.0297	50.362	.50443	1.0337

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	52.847	.48922	10.154	.50030	1.9770	.49900	1.9900	10.222	1.9886
Stddev	.031	.00070	.015	.00290	.0026	.00162	.0010	.057	.0059
%RSD	.05856	.14312	.15159	.57997	.12915	.32531	.04878	.55596	.29721

#1	52.869	.48873	10.144	.49825	1.9752	.50015	1.9893	10.263	1.9928
#2	52.825	.48972	10.165	.50236	1.9788	.49785	1.9907	10.182	1.9844

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0198	.97886	1.0232	1.9736	2.0577	.50063	.50691	.54166
Stddev	.0016	.00212	.0029	.0042	.0227	.00266	.00163	.00509
%RSD	.15476	.21688	.28359	.21300	1.1010	.53210	.32132	.94014

#1	1.0209	.97736	1.0252	1.9766	2.0737	.50252	.50806	.53806
#2	1.0187	.98036	1.0211	1.9706	2.0417	.49875	.50575	.54526

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5792.0	80323.	5024.1
Stddev	7.6	111.	4.5
%RSD	.13199	.13781	.08900

#1	5786.6	80244.	5020.9
#2	5797.4	80401.	5027.2

Sample Name: 280-70396-A-2-A Acquired: 6/15/2015 11:35:22 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281104 6010C Q4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0033	.00380	.00265	.00581	-0.0016	.00008	.00237	.03195	.00007
Stddev	.00047	.00079	.00221	.00041	.00039	.00006	.00262	.00275	.00006
%RSD	143.85	20.865	83.243	7.0490	247.31	78.348	110.23	8.6203	83.365

#1	.00001	.00324	.00421	.00552	-.00043	.00003	.00423	.03000	.00003
#2	-.00066	.00436	.00109	.00610	.00012	.00012	.00052	.03389	.00011

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0013	.00003	.00095	.01376	-1.1170	.00120	.00753	.00018	.00222
Stddev	.00015	.00015	.00006	.00291	.03420	.00249	.00136	.00005	.00029
%RSD	116.17	464.00	6.2374	21.157	30.620	207.50	18.015	29.366	13.153

#1	-.00024	.00014	.00090	.01170	-.13589	.00296	.00849	.00021	.00202
#2	-.00002	-.00007	.00099	.01582	-.08752	-.00056	.00657	.00014	.00243

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06076	.00024	.00553	-0.0082	.01344	.00016	-0.0048	.03328	-0.0033
Stddev	.00360	.00032	.00228	.00042	.00145	.00013	.00471	.00617	.00010
%RSD	5.9174	131.60	41.183	51.387	10.818	80.682	989.93	18.524	28.710

#1	.06330	.00002	.00714	-.00111	.01447	.00007	-.00381	.02892	-.00027
#2	.05822	.00047	.00392	-.00052	.01241	.00025	.00286	.03764	-.00040

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00008	-0.00114	.00016	.00037	.02899	-0.00033	-0.00163	-0.00104
Stddev	.00014	.00131	.00010	.00104	.00025	.00044	.00013	.00111
%RSD	169.47	114.88	65.326	277.28	.84527	135.06	7.8151	106.21

#1	.00018	-.00206	.00008	-.00036	.02882	-.00001	-.00154	-.00026
#2	-.00002	-.00021	.00023	.00111	.02917	-.00064	-.00173	-.00183

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6147.8	85755.	5181.9
Stddev	2.4	131.	16.8
%RSD	.03867	.15278	.32392

#1	6146.1	85847.	5170.1
#2	6149.5	85662.	5193.8

Sample Name: 280-70396-A-2-A SD@5 Acquired: 6/15/2015 11:38:03 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281104 6010C Q4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00056	.00061	.00159	.00398	-0.00022	.00008	.00185	.01453	.00017
Stddev	.00030	.00029	.00076	.00047	.00017	.00005	.00054	.00218	.00022
%RSD	54.038	48.101	47.699	11.889	81.175	60.364	29.014	14.985	129.06
#1	-0.00077	.00040	.00212	.00365	-0.00034	.00004	.00223	.01299	.00033
#2	-0.00035	.00082	.00105	.00432	-0.00009	.00011	.00147	.01606	.00001

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00017	-0.00001	.00032	.00196	-0.17288	.00142	.00626	.00002	.00071
Stddev	.00002	.00002	.00036	.00020	.06996	.00028	.00264	.00009	.00011
%RSD	13.188	242.33	111.74	10.027	40.464	19.516	42.161	451.15	15.868
#1	-0.00018	.00001	.00007	.00182	-0.22235	.00162	.00813	.00009	.00079
#2	-0.00015	-0.00002	.00058	.00209	-0.12342	.00122	.00439	-0.00004	.00063

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.05200	-0.00010	.00237	-0.00121	-0.00278	-0.00160	-0.00465	.00935	-0.00073
Stddev	.00579	.00012	.00004	.00091	.00030	.00000	.00026	.02852	.00043
%RSD	11.138	113.53	1.5202	74.635	10.726	.01146	5.4883	305.10	59.650
#1	-0.04791	-0.00019	.00235	-0.00057	-0.00299	-0.00160	-0.00483	-0.01082	-0.00103
#2	-0.05610	-0.00002	.00240	-0.00185	-0.00257	-0.00160	-0.00447	.02951	-0.00042

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00009	.00051	-0.00024	-0.00078	.00606	-0.00052	-0.00299	-0.00185
Stddev	.00014	.00084	.00031	.00038	.03546	.00034	.00097	.00302
%RSD	153.89	166.63	132.39	48.519	585.68	64.428	32.539	162.99
#1	-0.00001	.00110	-0.00002	-0.00051	.03113	-0.00029	-0.00368	-0.00399
#2	.00019	-0.00009	-0.00046	-0.00105	-0.01902	-0.00076	-0.00230	.00028

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6023.7	84145.	5091.5
Stddev	8.2	49.	10.5
%RSD	.13568	.05864	.20673
#1	6029.5	84110.	5098.9
#2	6017.9	84180.	5084.0

Sample Name: 280-70396-A-2-B MS Acquired: 6/15/2015 11:40:42 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281104 6010C Q4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05181	2.0354	.99663	1.0318	2.1382	.05151	2.0702	51.948	.10420
Stddev	.00087	.0003	.00381	.0013	.0027	.00017	.0025	.088	.00005
%RSD	1.6879	.01244	.38256	.12430	.12644	.32409	.12122	.16903	.05269

#1	.05243	2.0353	.99932	1.0309	2.1363	.05163	2.0685	51.886	.10416
#2	.05119	2.0356	.99393	1.0327	2.1401	.05139	2.0720	52.010	.10424

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50239	.20308	.26322	1.0620	50.518	1.0451	51.855	.51904	1.0557
Stddev	.00132	.00053	.00017	.0009	.154	.0010	.011	.00072	.0028
%RSD	.26302	.26200	.06597	.08747	.30540	.09415	.02134	.13830	.26776

#1	.50333	.20346	.26309	1.0614	50.409	1.0444	51.863	.51955	1.0577
#2	.50146	.20270	.26334	1.0627	50.627	1.0458	51.847	.51854	1.0537

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	52.418	.50061	10.372	.50975	2.0159	.50902	2.0152	10.408	2.0230
Stddev	.297	.00001	.005	.00009	.0046	.00095	.0043	.006	.0014
%RSD	.56738	.00266	.05182	.01812	.23008	.18645	.21525	.05325	.06874

#1	52.629	.50061	10.376	.50968	2.0192	.50969	2.0183	10.404	2.0239
#2	52.208	.50060	10.368	.50981	2.0127	.50834	2.0122	10.412	2.0220

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0272	1.0033	1.0430	2.0095	2.1520	.51382	.52097	.54454
Stddev	.0014	.0031	.0008	.0026	.0389	.00323	.00131	.00515
%RSD	.13214	.30629	.08153	.12717	1.8088	.62922	.25164	.94576

#1	1.0262	1.0012	1.0436	2.0077	2.1795	.51153	.52190	.54090
#2	1.0282	1.0055	1.0424	2.0113	2.1245	.51610	.52005	.54819

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	5798.7	80293.	5111.5
Stddev	8.0	38.	5.6
%RSD	.13831	.04731	.11046

#1	5804.4	80320.	5115.5
#2	5793.0	80266.	5107.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05227	2.0341	.99204	1.0417	2.1672	.05224	2.0824	52.292	.10469
Stddev	.00036	.0050	.00885	.0008	.0021	.00004	.0042	.029	.00018
%RSD	.68205	.24476	.89230	.07327	.09533	.06725	.20361	.05563	.16843

#1	.05202	2.0377	.99830	1.0423	2.1686	.05227	2.0854	52.312	.10456
#2	.05253	2.0306	.98578	1.0412	2.1657	.05222	2.0794	52.271	.10481

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50421	.20398	.26213	1.0318	51.005	1.0506	51.852	.52095	1.0654
Stddev	.00095	.00015	.00024	.0034	.038	.0043	.095	.00160	.0007
%RSD	.18850	.07574	.09191	.33325	.07389	.40531	.18303	.30683	.06805

#1	.50488	.20409	.26196	1.0342	51.031	1.0536	51.919	.52208	1.0659
#2	.50353	.20387	.26230	1.0293	50.978	1.0476	51.785	.51982	1.0649

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	53.782	.50195	10.374	.51302	2.0379	.50980	2.0321	10.536	2.0350
Stddev	.245	.00107	.011	.00099	.0073	.00270	.0066	.011	.0022
%RSD	.45530	.21304	.11032	.19384	.35662	.52949	.32738	.10505	.10811

#1	53.955	.50270	10.382	.51372	2.0430	.51171	2.0274	10.528	2.0366
#2	53.609	.50119	10.365	.51232	2.0327	.50789	2.0368	10.544	2.0335

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0398	1.0110	1.0532	2.0163	2.1872	.51401	.51990	.55256
Stddev	.0005	.0005	.0023	.0010	.0265	.00243	.00099	.00191
%RSD	.05219	.05049	.21666	.05182	1.2132	.47189	.18973	.34494

#1	1.0402	1.0106	1.0548	2.0155	2.2059	.51573	.52060	.55121
#2	1.0394	1.0114	1.0516	2.0170	2.1684	.51230	.51921	.55391

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	5758.3	79693.	5057.8
Stddev	6.9	185.	25.4
%RSD	.11936	.23186	.50182

#1	5763.1	79562.	5039.8
#2	5753.4	79824.	5075.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04658	.93585	.17519	.09581	.09884	.04688	-.00402	18.737	.04717
Stddev	.00013	.00499	.00238	.00114	.00043	.00020	.00157	.012	.00038
%RSD	.28824	.53363	1.3573	1.1927	.43919	.42408	39.145	.06263	.81322

#1	.04649	.93938	.17687	.09661	.09915	.04674	-.00291	18.746	.04744
#2	.04667	.93232	.17350	.09500	.09854	.04702	-.00514	18.729	.04690

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04483	.04550	.04894	.93890	18.388	.09348	18.624	.04722	.04801
Stddev	.00027	.00044	.00033	.00482	.045	.00090	.042	.00008	.00032
%RSD	.59122	.96520	.67542	.51328	.24642	.96664	.22377	.16442	.67230

#1	.04502	.04581	.04871	.93549	18.356	.09412	18.653	.04728	.04778
#2	.04464	.04519	.04918	.94230	18.420	.09284	18.594	.04717	.04824

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	19.633	.04513	1.8116	.09254	.01075	.09066	.18050	4.7448	.09171
Stddev	.143	.00047	.0152	.00017	.00531	.00154	.00391	.0005	.00158
%RSD	.72856	1.0499	.83865	.18841	49.436	1.6944	2.1676	.01045	1.7269

#1	19.734	.04546	1.8224	.09266	.01451	.08957	.17774	4.7445	.09283
#2	19.532	.04479	1.8009	.09241	.00699	.09174	.18327	4.7452	.09059

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04773	.18053	.04764	.18849	.49215	.04543	.19265	.05533
Stddev	.00014	.00310	.00051	.00004	.03561	.00019	.00086	.00148
%RSD	.29355	1.7145	1.0747	.02099	7.2365	.41232	.44800	2.6783

#1	.04763	.18272	.04728	.18851	.51733	.04529	.19326	.05428
#2	.04783	.17834	.04801	.18846	.46696	.04556	.19204	.05637

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5942.4	81958.	5039.2
Stddev	20.0	208.	12.6
%RSD	.33594	.25423	.24958

#1	5928.3	81811.	5048.1
#2	5956.5	82106.	5030.3

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0087	50.194	-0.0011	.00646	.00054	.00006	.99440	.02234	-0.0137	.00085	.00037	.01788	50.687
Stddev	.00024	.055	.00382	.00035	.00058	.00010	.00360	.00020	.00004	.00008	.00003	.00021	.024
%RSD	27.710	.10896	3354.9	5.4401	107.14	161.78	.36232	.90353	2.7774	8.9164	7.7106	1.1802	.04787

#1	-0.0104	50.232	.00259	.00671	.00095	.00013	.99185	.02220	-0.0140	.00079	.00039	.01803	50.670
#2	-0.0070	50.155	-0.0282	.00621	.00013	-0.0001	.99695	.02248	-0.0134	.00090	.00035	.01774	50.704

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00239	-0.0114	.00180	.00157	-0.00096	252.73	.00173	.00756	.00008	4.8916	.01353	.00261	.01050
Stddev	.03115	.00118	.00994	.00003	.00009	.39	.00016	.00074	.00010	.0163	.00085	.00261	.00910
%RSD	1304.7	103.74	550.68	1.9956	9.8098	.15533	9.2686	9.7317	122.43	.33364	6.2876	100.27	86.685

#1	-0.02441	-0.00030	-0.00522	.00159	-0.00102	252.45	.00162	.00809	.00016	4.8801	.01293	.00076	.00406
#2	.01964	-0.00198	.00883	.00155	-0.00089	253.01	.00184	.00704	.00001	4.9032	.01414	.00446	.01694

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00073	.00043	4.7913	.00144	.00043	9.7795	.00162	.00008	.20528
Stddev	.00074	.00000	.0004	.00008	.00098	.0631	.00009	.00012	.00002
%RSD	101.56	.22699	.00751	5.7985	227.09	.64549	5.5708	151.18	.00998

#1	.00125	.00043	4.7915	.00138	-0.00026	9.7349	.00155	.00016	.20530
#2	.00021	.00043	4.7910	.00150	.00113	9.8242	.00168	-0.00001	.20527

Check ?	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5779.2	79858.	5054.6
Stddev	4.4	101.	24.3
%RSD	.07665	.12620	.48052

#1	5782.4	79929.	5037.4
#2	5776.1	79787.	5071.7

Sample Name: ccv-3330457 Acquired: 6/15/2015 11:50:40 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48798	.50778	.96238	.49065	.52814	.49452	-.04991	5.0183	.50201	.49322	.49008	.49631	2.4757
Stddev	.00068	.00349	.00042	.00040	.00070	.00055	.00405	.0086	.00077	.00055	.00255	.00012	.0014
%RSD	.13869	.68670	.04416	.08169	.13339	.11173	8.1218	.17065	.15353	.11157	.52083	.02435	.05539

#1	.48750	.51025	.96208	.49093	.52764	.49413	-.05278	5.0122	.50256	.49361	.49189	.49622	2.4766
#2	.48846	.50532	.96268	.49037	.52864	.49491	-.04704	5.0243	.50147	.49283	.48828	.49640	2.4747

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	48.159	1.0320	19.725	.49601	.49219	5.1096	.49232	.96555	1.0111	-.01263	.98694	.96573	4.9971
Stddev	.062	.0000	.010	.00009	.00099	.0147	.00108	.00319	.0019	.00660	.00246	.00159	.0039
%RSD	.12807	.00115	.05121	.01895	.20088	.28685	.22002	.33050	.19011	52.234	.24922	.16460	.07720

#1	48.203	1.0320	19.718	.49594	.49289	5.1200	.49308	.96781	1.0098	-.01729	.98868	.96686	4.9999
#2	48.115	1.0320	19.732	.49607	.49149	5.0992	.49155	.96329	1.0125	-.00796	.98520	.96461	4.9944

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass								
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.98336	.50377	.01738	.50137	1.0107	.03277	.48112	.49383	.49185
Stddev	.00145	.00108	.00120	.00117	.0030	.00864	.00024	.00181	.00159
%RSD	.14792	.21420	6.8937	.23419	.29352	26.371	.05002	.36617	.32358

#1	.98439	.50301	.01653	.50054	1.0128	.03888	.48129	.49255	.49297
#2	.98233	.50453	.01822	.50220	1.0086	.02666	.48095	.49511	.49072

Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5917.2	82251.	5015.5
Stddev	9.7	71.	2.7
%RSD	.16387	.08589	.05396

#1	5910.4	82201.	5013.6
#2	5924.1	82301.	5017.4

Sample Name: CCB Acquired: 6/15/2015 11:53:07 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0036	.00057	.00193	F .00357	-0.00038	.00013	.00216	.00664	.00017	-0.00009	.00003	.00003
Stddev	.00008	.00079	.00267	.00007	.00017	.00001	.00302	.00494	.00015	.00044	.00022	.00022
%RSD	22.990	138.23	138.81	2.0226	46.425	8.5733	139.59	74.293	88.503	514.42	741.76	740.07

#1	-0.00031	.00001	.00382	.00352	-0.00025	.00012	.00003	.00315	.00006	.00023	-0.00012	.00018
#2	-0.00042	.00114	.00004	.00362	-0.00050	.00014	.00430	.01013	.00027	-0.00040	.00018	-0.00013

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.00312								
Low Limit				-.00312								

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00449	-0.07811	.00121	.00024	-0.00002	.00129	-0.05335	-0.00006	.00141	-0.00094	-0.00857	.00200
Stddev	.00200	.02713	.00126	.00021	.00004	.00009	.00009	.00002	.00423	.00049	.00252	.00007
%RSD	44.482	34.737	104.36	87.585	246.22	7.1440	.16058	36.219	299.06	51.548	29.406	3.6756

#1	-0.00590	-0.05892	.00211	.00039	.00001	.00123	-0.05341	-0.00005	-0.00158	-0.00129	-0.00678	.00195
#2	-0.00308	-0.09729	.00032	.00009	-0.00005	.00136	-0.05329	-0.00008	.00440	-0.00060	-0.01035	.00206

Check ?	Chk Pass	None	Chk Pass									
High Limit												
Low Limit												

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00068	.03986	-0.00031	-0.00004	.00070	.00025	.00003	.01860	-0.00087	-0.00320	.00171
Stddev	.00022	.01797	.00148	.00009	.00111	.00034	.00170	.02702	.00007	.00035	.00020
%RSD	31.832	45.078	474.06	234.79	157.13	135.72	5241.7	145.27	8.1336	10.801	11.509

#1	.00053	.02715	.00073	-0.00010	.00149	.00001	.00123	-0.00051	-0.00093	-0.00345	.00157
#2	.00084	.05256	-.00136	.00002	-0.00008	.00049	-0.00117	.03770	-0.00082	-0.00296	.00185

Check ?	Chk Pass										
High Limit											
Low Limit											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5982.4	84604.	4986.8
Stddev	7.1	133.	8.9
%RSD	.11824	.15681	.17927

#1	5987.4	84510.	4980.5
#2	5977.4	84698.	4993.1

Sample Name: CCVL3331245 Acquired: 6/15/2015 11:55:47 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01019	.11008	W .01107	.10092	.01073	.00118	W .12257	.22163	.00545	.01061	.01060	.01651
Stddev	.00010	.00032	.00082	.00051	.00022	.00014	.00296	.00377	.00003	.00014	.00015	.00051
%RSD	.97346	.29518	7.4249	.50830	2.0092	11.774	2.4172	1.7023	.50708	1.2729	1.3861	3.0704

#1	.01026	.11031	.01165	.10128	.01057	.00127	.12047	.21896	.00543	.01051	.01071	.01616
#2	.01012	.10985	.01049	.10056	.01088	.00108	.12466	.22430	.00547	.01070	.01050	.01687

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			.01500				.10000					
Range			-20.000%				20.000%					

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10389	3.0269	.01195	.22167	.01070	.02024	1.0341	.04225	2.9431	.00980	-.00839	.00840
Stddev	.00133	.0080	.00071	.00175	.00007	.00008	.0009	.00023	.0023	.00093	.00167	.00048
%RSD	1.2832	.26526	5.9732	.79098	.67064	.40723	.08558	.54448	.07787	9.4562	19.863	5.7491

#1	.10295	3.0212	.01245	.22043	.01065	.02030	1.0347	.04241	2.9447	.00914	-.00957	.00806
#2	.10483	3.0325	.01144	.22291	.01075	.02018	1.0335	.04208	2.9415	.01045	-.00721	.00874

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .01114	.51974	.10375	.01054	.01506	.01010	.01597	.05763	.00925	.02042	.01548
Stddev	.00149	.01265	.00076	.00006	.00161	.00007	.00039	.02166	.00020	.00004	.00032
%RSD	13.393	2.4344	.72821	.52499	10.671	.72089	2.4306	37.594	2.1280	.19267	2.0649

#1	.01008	.51080	.10428	.01058	.01619	.01015	.01624	.04231	.00939	.02045	.01571
#2	.01219	.52869	.10322	.01050	.01392	.01005	.01569	.07295	.00911	.02039	.01525

Check ?	Chk Warn	Chk Pass									
Value	.01500										
Range	-20.000%										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6030.1	84606.	5021.3
Stddev	16.5	195.	16.8
%RSD	.27285	.22992	.33517

#1	6041.7	84744.	5009.4
#2	6018.4	84469.	5033.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00089	.00013	-.00256	.01202	.00903	.00009	.00554	19.581	.00003
Stddev	.00022	.00109	.00043	.00124	.00028	.00007	.00192	.075	.00008
%RSD	24.366	851.41	16.802	10.299	3.0738	78.659	34.620	.38512	247.31

#1	.00104	.00090	-.00287	.01290	.00883	.00004	.00418	19.634	.00009
#2	.00074	-.00064	-.00226	.01115	.00922	.00015	.00689	19.527	-.00002

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00019	.03199	.00099	-.00310	18.992	.00785	3.3742	W 10.118	-.00004
Stddev	.00002	.00030	.00046	.00038	.034	.00218	.0013	.012	.00037
%RSD	8.7611	.94506	46.601	12.351	.18111	27.814	.03811	.12237	938.42

#1	-.00020	.03220	.00066	-.00283	18.968	.00630	3.3751	10.109	-.00030
#2	-.00018	.03177	.00131	-.00337	19.017	.00939	3.3733	10.127	.00022

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								10.000	
Low Limit								-.01000	

Elem	Na5895	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	589.592 { 57}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.7130	W 9.6671	.00143	.00163	.00059	7.3185	-.00126	-.00094	2.7145
Stddev	.0166	.0434	.00003	.00138	.00052	.0272	.00107	.00077	.0084
%RSD	.19013	.44858	1.8685	84.349	87.637	.37199	85.111	82.366	.31132

#1	8.7247	9.6978	.00141	.00066	.00023	7.3377	-.00202	-.00039	2.7205
#2	8.7012	9.6365	.00145	.00260	.00096	7.2992	-.00050	-.00148	2.7085

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		500.00							
Low Limit		10.000							

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00081	.19802	-.00006	.00019	W -.01382	-.04586	-.00164	-.00235	-.00106
Stddev	.00006	.00031	.00314	.00009	.00103	.00763	.00027	.00007	.00136
%RSD	6.8354	.15824	5618.7	49.301	7.4665	16.641	16.400	2.8585	128.21

#1	-.00084	.19824	-.00228	.00012	-.01309	-.04046	-.00182	-.00230	-.00202
#2	-.00077	.19780	.00217	.00025	-.01455	-.05125	-.00145	-.00240	-.00010

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					5.0000				
Low Limit					-.01000				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5887.5	82550.	4983.9
Stddev	2.0	334.	21.4
%RSD	.03363	.40517	.42899

#1	5888.9	82787.	4968.8
#2	5886.1	82314.	4999.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00108	-.00014	.00260	.02146	.01381	.00013	-.00152	55.141	.00017
Stddev	.00040	.00038	.00174	.00008	.00020	.00017	.00259	.132	.00012
%RSD	37.062	274.86	67.006	.36700	1.4282	128.62	170.65	.23991	71.700
#1	.00080	-.00041	.00137	.02151	.01367	.00001	.00031	55.048	.00025
#2	.00137	.00013	.00382	.02140	.01395	.00025	-.00334	55.235	.00008

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00027	.07644	.00075	-.00371	32.777	.01311	9.3513	7.5574	.00014
Stddev	.00002	.00022	.00031	.00086	.086	.00035	.0068	.0374	.00015
%RSD	8.1259	.29340	41.529	23.068	.26228	2.7007	.07267	.49440	101.24
#1	-.00026	.07628	.00097	-.00310	32.716	.01336	9.3465	7.5310	.00004
#2	-.00029	.07660	.00053	-.00431	32.837	.01286	9.3561	7.5838	.00025

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	20.179	.00466	-.00001	.00033	23.889	-.00182	-.00307	5.8514	-.00117
Stddev	.183	.00027	.00223	.00038	.056	.00055	.00154	.0091	.00013
%RSD	.90726	5.7890	21853.	114.69	.23426	30.457	50.231	.15472	10.721
#1	20.050	.00447	-.00158	.00006	23.849	-.00143	-.00416	5.8449	-.00108
#2	20.309	.00485	.00156	.00060	23.929	-.00221	-.00198	5.8578	-.00126

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50005	.00168	-.00017	-.00945	-.04375	-.00050	.00223	.00007
Stddev	.00110	.00317	.00010	.00176	.06280	.00074	.00016	.00010
%RSD	.22079	188.35	58.131	18.627	143.52	147.10	7.2959	144.27
#1	.49927	-.00056	-.00024	-.01069	.00065	-.00103	.00234	-.00000
#2	.50083	.00393	-.00010	-.00820	-.08816	.00002	.00211	.00014

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5843.9	81550.	5000.7
Stddev	8.8	83.	2.2
%RSD	.15106	.10231	.04395
#1	5837.7	81491.	5002.3
#2	5850.2	81609.	4999.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0031	-0.0017	.00057	.00544	.00303	.00004	.00375	11.387	.00021
Stddev	.00039	.00030	.00169	.00025	.00010	.00013	.00029	.001	.00028
%RSD	125.61	180.23	299.19	4.6474	3.2870	362.62	7.7054	.01267	137.43

#1	-0.0059	-0.0038	.00177	.00562	.00310	-0.0006	.00395	11.388	.00001
#2	-0.0003	.00005	-.00063	.00526	.00296	.00013	.00355	11.386	.00040

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0016	.01583	.00048	-0.00261	6.7352	.00324	1.9936	1.6142	-0.0003
Stddev	.00004	.00000	.00076	.00155	.0937	.00116	.0057	.0009	.00030
%RSD	26.357	.01344	157.24	59.378	1.3916	35.928	.28427	.05417	867.40

#1	-0.0020	.01583	-.00005	-.00151	6.6689	.00406	1.9896	1.6148	.00018
#2	-0.0013	.01583	.00101	-.00371	6.8015	.00242	1.9976	1.6136	-.00025

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.9857	.00093	.00108	.00069	4.8430	-0.00134	-0.00171	1.2103	-0.00054
Stddev	.0024	.00049	.00226	.00113	.0013	.00026	.00307	.0035	.00046
%RSD	.06110	52.627	209.90	163.71	.02732	19.334	179.72	.28566	85.323

#1	3.9840	.00058	-.00052	-.00011	4.8420	-.00153	.00046	1.2079	-.00021
#2	3.9874	.00127	.00267	.00149	4.8439	-.00116	-.00388	1.2127	-.00086

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10457	.00242	.00016	-0.00348	-0.01317	-0.00102	-0.00216	.00106
Stddev	.00034	.00149	.00004	.00022	.00552	.00033	.00002	.00195
%RSD	.32866	61.665	25.858	6.3558	41.935	32.178	.86916	184.42

#1	.10432	.00136	.00018	-.00332	-.01708	-.00126	-.00215	.00243
#2	.10481	.00348	.00013	-.00364	-.00927	-.00079	-.00217	-.00032

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5944.5	83675.	5090.6
Stddev	17.0	284.	42.8
%RSD	.28643	.33900	.84011

#1	5956.6	83475.	5120.9
#2	5932.5	83876.	5060.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01112	.40498	.19729	.22222	.42940	.00998	.40781	63.922	.02042
Stddev	.00054	.00224	.00138	.00004	.00088	.00004	.00103	.221	.00019
%RSD	4.8565	.55349	.69811	.01880	.20594	.38168	.25200	.34535	.92840

#1	.01150	.40339	.19826	.22225	.42878	.01001	.40708	63.766	.02056
#2	.01073	.40656	.19631	.22219	.43003	.00995	.40854	64.079	.02029

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09897	.11472	.05195	.19799	41.984	.21735	18.953	7.5809	.20854
Stddev	.00032	.00027	.00050	.00119	.115	.00058	.041	.0077	.00047
%RSD	.32216	.23610	.95549	.60159	.27303	.26591	.21567	.10162	.22576

#1	.09919	.11491	.05160	.19883	41.903	.21694	18.982	7.5863	.20887
#2	.09874	.11453	.05230	.19715	42.065	.21776	18.924	7.5755	.20820

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	30.591	.10182	2.0429	.09812	24.034	.09939	.39666	7.7510	.40022
Stddev	.099	.00036	.0047	.00129	.035	.00187	.00528	.0261	.00206
%RSD	.32239	.35526	.23160	1.3128	.14709	1.8785	1.3298	.33694	.51392

#1	30.661	.10156	2.0395	.09903	24.009	.10071	.39293	7.7326	.39877
#2	30.522	.10208	2.0462	.09721	24.059	.09807	.40039	7.7695	.40168

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.68996	.19606	.20415	.38887	.33713	.09810	.09848	.10867
Stddev	.00114	.00138	.00071	.00039	.00728	.00097	.00035	.00177
%RSD	.16546	.70283	.34705	.10123	2.1606	.99349	.35782	1.6277

#1	.68916	.19703	.20465	.38915	.33198	.09741	.09824	.10742
#2	.69077	.19508	.20365	.38859	.34228	.09879	.09873	.10992

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5805.6	81096.	5012.3
Stddev	6.4	512.	30.9
%RSD	.11074	.63193	.61643

#1	5801.1	80734.	5034.2
#2	5810.2	81459.	4990.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01062	.40443	.19690	.22173	.43416	.01007	.40358	64.585	.02003
Stddev	.00074	.00122	.00251	.00029	.00227	.00006	.00015	.123	.00001
%RSD	7.0049	.30191	1.2752	.13110	.52173	.58674	.03665	.19058	.07081

#1	.01009	.40529	.19513	.22193	.43576	.01011	.40348	64.672	.02002
#2	.01115	.40356	.19868	.22152	.43255	.01002	.40368	64.498	.02004

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09824	.11486	.05179	.19681	42.274	.21834	18.951	7.7256	.20864
Stddev	.00053	.00014	.00005	.00639	.138	.00242	.001	.0456	.00041
%RSD	.53510	.12307	.08973	3.2473	.32701	1.1077	.00471	.59048	.19801

#1	.09862	.11476	.05182	.20133	42.372	.22005	18.950	7.7578	.20893
#2	.09787	.11496	.05176	.19229	42.177	.21663	18.951	7.6933	.20834

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	30.700	.10098	2.0347	.09865	24.258	.09793	.39492	7.8442	.39926
Stddev	.590	.00046	.0037	.00213	.038	.00223	.00262	.0038	.00124
%RSD	1.9230	.45716	.18302	2.1633	.15548	2.2764	.66328	.04882	.30950

#1	30.283	.10131	2.0320	.10016	24.232	.09950	.39677	7.8415	.40013
#2	31.118	.10066	2.0373	.09714	24.285	.09635	.39307	7.8469	.39838

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.69907	.19506	.20543	.38537	.35077	.09799	.09691	.10852
Stddev	.00271	.00053	.00027	.00251	.05771	.00082	.00032	.00015
%RSD	.38767	.27068	.13047	.65194	16.452	.83496	.32652	.13613

#1	.70098	.19543	.20524	.38360	.30996	.09857	.09714	.10862
#2	.69715	.19468	.20562	.38715	.39158	.09742	.09669	.10841

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5810.6	81390.	5013.3
Stddev	4.5	139.	10.0
%RSD	.07743	.17057	.19915

#1	5807.4	81292.	5006.3
#2	5813.8	81489.	5020.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04894	.95571	.18713	.11401	.11593	.04822	-.00669	73.338	.04843
Stddev	.00015	.00146	.00146	.00012	.00002	.00022	.00232	.085	.00016
%RSD	.30285	.15268	.77937	.10193	.02124	.45563	34.722	.11627	.33487
#1	.04904	.95468	.18610	.11409	.11592	.04838	-.00505	73.399	.04855
#2	.04883	.95674	.18816	.11392	.11595	.04807	-.00834	73.278	.04832

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04696	.12286	.05032	.96415	51.298	.10827	27.814	7.4335	.04832
Stddev	.00016	.00029	.00066	.00259	.092	.01152	.044	.0661	.00018
%RSD	.33981	.23725	1.3166	.26866	.17890	1.4063	.15726	.88918	.38216
#1	.04707	.12265	.05079	.96232	51.363	.10934	27.845	7.3868	.04819
#2	.04685	.12307	.04986	.96598	51.234	.10719	27.783	7.4803	.04845

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	40.343	.05150	1.9532	.09467	23.630	.09381	.18414	10.641	.09486
Stddev	.119	.00000	.0035	.00028	.010	.00200	.00110	.000	.00140
%RSD	.29507	.00268	.17863	.29702	.04320	2.1291	.59636	.00427	1.4718
#1	40.427	.05150	1.9507	.09487	23.623	.09522	.18491	10.641	.09387
#2	40.258	.05150	1.9556	.09447	23.637	.09240	.18336	10.641	.09585

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.54012	.18525	.04970	.17885	.45456	.04791	.20299	.05747
Stddev	.00042	.00082	.00054	.00080	.02990	.00021	.00012	.00148
%RSD	.07684	.44049	1.0949	.44775	6.5788	.43063	.06026	2.5668
#1	.54042	.18467	.04932	.17828	.47571	.04776	.20291	.05643
#2	.53983	.18583	.05008	.17941	.43342	.04805	.20308	.05851

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	5763.5	80388.	4986.9
Stddev	3.3	539.	20.6
%RSD	.05812	.67073	.41283
#1	5765.8	80769.	5001.5
#2	5761.1	80007.	4972.4

Sample Name: 280-70061-B-15-A Acquired: 6/15/2015 12:14:20 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 280394 6010C Q4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00107	.00011	.00470	.06590	.08199	.00012	-0.00329	83.292	.00014
Stddev	.00049	.00045	.00029	.00118	.00071	.00012	.00241	.358	.00012
%RSD	45.907	412.11	6.0798	1.7911	.87122	101.29	73.190	.43000	84.865

#1	-0.00142	.00043	.00490	.06506	.08249	.00020	-.00500	83.546	.00022
#2	-0.00072	-.00021	.00450	.06673	.08148	.00003	-.00159	83.039	.00006

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00023	.06002	.00155	.00127	2.0864	.02852	16.265	.00091	.00217
Stddev	.00001	.00025	.00010	.00075	.1147	.00071	.017	.00009	.00001
%RSD	2.3644	.41153	6.5213	58.958	5.4972	2.4975	.10168	10.319	.65766

#1	-0.00024	.06019	.00148	.00180	2.1675	.02801	16.277	.00084	.00218
#2	-0.00023	.05984	.00162	.00074	2.0053	.02902	16.253	.00098	.00216

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.367	.00076	.00322	-0.00100	30.445	-0.00109	-0.00009	13.364	-0.00149
Stddev	.300	.00016	.00072	.00172	.093	.00170	.00082	.036	.00016
%RSD	.59547	20.784	22.334	171.47	.30589	155.27	892.68	.26929	10.768

#1	50.155	.00088	.00372	-.00221	30.379	-.00229	-.00067	13.390	-.00161
#2	50.579	.00065	.00271	.00021	30.511	.00011	.00049	13.339	-.00138

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.97428	.00124	.00004	.00143	-.02126	.00413	-0.00210	.00211
Stddev	.00464	.00156	.00015	.00048	.02804	.00006	.00006	.00123
%RSD	.47646	125.44	440.69	33.608	131.89	1.4227	2.8577	58.300

#1	.97757	.00234	.00014	.00177	-.04108	.00417	-.00215	.00124
#2	.97100	.00014	-.00007	.00109	-.00143	.00409	-.00206	.00298

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5790.0	81474.	5035.4
Stddev	5.6	103.	2.8
%RSD	.09757	.12638	.05467

#1	5786.0	81547.	5037.4
#2	5794.0	81401.	5033.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0055	.00217	.00391	.06660	.08161	.00017	-0.00239	82.714	.00010
Stddev	.00004	.00089	.00199	.00008	.00027	.00003	.00094	.065	.00004
%RSD	8.0899	41.095	50.867	.12314	.32553	18.879	39.351	.07820	38.836
#1	-0.0052	.00154	.00532	.06665	.08142	.00014	-.00173	82.668	.00013
#2	-0.0059	.00280	.00250	.06654	.08180	.00019	-.00306	82.759	.00008

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0049	.06011	.00165	.00648	2.0012	.02627	16.182	.00109	.00279
Stddev	.00004	.00004	.00024	.00210	.0230	.00122	.034	.00000	.00016
%RSD	8.1128	.06583	14.644	32.337	1.1467	4.6448	.20863	.02727	5.5632
#1	-0.0051	.06013	.00182	.00796	1.9849	.02714	16.206	.00109	.00268
#2	-0.0046	.06008	.00148	.00500	2.0174	.02541	16.158	.00109	.00290

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.786	.00091	.00555	-0.00153	30.515	-0.00318	-0.00267	13.290	-0.00168
Stddev	.627	.00034	.00127	.00106	.015	.00009	.00124	.029	.00010
%RSD	1.2344	37.504	22.831	69.312	.05060	2.9080	46.536	.21747	5.6672
#1	50.343	.00115	.00466	-.00228	30.526	-.00324	-.00355	13.269	-.00175
#2	51.229	.00067	.00645	-.00078	30.504	-.00311	-.00179	13.310	-.00161

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.97186	.00193	-.00023	-0.00039	-0.02375	.00375	-0.00205	.00033
Stddev	.00107	.00175	.00038	.00050	.02164	.00017	.00032	.00095
%RSD	.11041	90.712	161.53	129.76	91.137	4.4052	15.817	283.18
#1	.97110	.00316	-.00050	-.00075	-.00844	.00387	-.00228	-.00033
#2	.97262	.00069	.00003	-.00003	-.03905	.00364	-.00182	.00100

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5791.5	81529.	5076.0
Stddev	1.8	48.	14.1
%RSD	.03130	.05836	.27719
#1	5792.7	81495.	5085.9
#2	5790.2	81562.	5066.0

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0081	50.623	-0.0144	.00363	.00032	-0.0004	.99057	.01835	-0.00138	.00087	.00038	.01679	51.209
Stddev	.00081	.033	.00315	.00010	.00023	.00005	.00038	.00893	.00015	.00005	.00006	.00022	.321
%RSD	100.22	.06548	219.16	2.6927	72.720	140.76	.03854	48.695	11.054	6.2614	15.415	1.3293	.62630

#1	-0.0024	50.599	.00079	.00356	.00049	-0.00000	.99084	.01203	-0.00127	.00083	.00034	.01694	50.982
#2	-0.00138	50.646	-0.00367	.00370	.00016	-0.00007	.99030	.02467	-0.00149	.00091	.00042	.01663	51.436

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.11384	.00404	.00545	.00152	-0.00182	254.32	.00212	.00606	-0.00045	4.8981	.01162	.00140	.03960
Stddev	.02276	.00004	.00128	.00011	.00011	.84	.00009	.00041	.00039	.0053	.00135	.00476	.00372
%RSD	19.991	1.0534	23.495	7.3384	6.0496	.32945	4.2656	6.8172	85.827	.10874	11.586	339.00	9.3915

#1	-0.09775	.00407	.00636	.00160	-0.00174	254.91	.00218	.00576	-0.00018	4.9019	.01257	.00477	.03697
#2	-0.12993	.00401	.00455	.00145	-0.00189	253.73	.00205	.00635	-0.00073	4.8944	.01067	-0.00196	.04223

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00044	.00035	4.7956	.00252	-0.00068	9.6985	.00166	-0.00012	.19939
Stddev	.00034	.00001	.0013	.00027	.00096	.0206	.00048	.00041	.00137
%RSD	76.343	3.7888	.02793	10.747	140.99	.21209	29.113	335.86	.68887

#1	-0.00020	.00036	4.7965	.00233	-0.00000	9.7130	.00200	.00017	.20036
#2	-0.00068	.00034	4.7946	.00271	-0.00136	9.6839	.00131	-0.00041	.19842

Check ?	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5733.6	79484.	4941.6
Stddev	13.2	47.	26.0
%RSD	.23054	.05942	.52528

#1	5743.0	79450.	4959.9
#2	5724.3	79517.	4923.2

Sample Name: ccv-3330457 Acquired: 6/15/2015 12:22:06 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49175	.50965	.97515	.49083	.52700	.49384	-.04888	5.0253	.49922	.50215	.49807	.50146	2.5013
Stddev	.00027	.00136	.00055	.00068	.00000	.00034	.00240	.0140	.00020	.00062	.00010	.00068	.0046
%RSD	.05587	.26740	.05604	.13917	.00040	.06928	4.9152	.27862	.03966	.12385	.01913	.13506	.18272

#1	.49194	.50869	.97553	.49131	.52700	.49360	-.04718	5.0154	.49908	.50171	.49814	.50194	2.5045
#2	.49155	.51062	.97476	.49035	.52699	.49408	-.05058	5.0352	.49936	.50259	.49801	.50098	2.4981

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	48.932	1.0493	19.583	.49612	.50185	5.1453	.50276	.97935	1.0090	-.00743	.98668	.97780	5.0281
Stddev	.151	.0026	.006	.00014	.00041	.0117	.00040	.00130	.0006	.00025	.00150	.00442	.0015
%RSD	.30935	.24270	.02909	.02735	.08186	.22816	.08003	.13324	.06259	3.3926	.15252	.45218	.02971

#1	48.825	1.0475	19.587	.49602	.50214	5.1370	.50248	.97843	1.0095	-.00725	.98775	.98093	5.0271
#2	49.039	1.0511	19.579	.49621	.50156	5.1536	.50305	.98027	1.0086	-.00760	.98562	.97468	5.0292

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass								
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.99558	.51222	.01889	.50292	1.0162	.01830	.48394	.49613	.50228
Stddev	.00090	.00140	.00060	.00079	.0029	.00057	.00195	.00031	.00057
%RSD	.08996	.27354	3.1773	.15797	.28081	3.1341	.40285	.06259	.11267

#1	.99621	.51123	.01847	.50236	1.0142	.01871	.48256	.49635	.50188
#2	.99495	.51321	.01932	.50348	1.0182	.01790	.48532	.49591	.50268

Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5827.5	81541.	4917.3
Stddev	9.1	144.	17.2
%RSD	.15558	.17613	.34890

#1	5833.9	81440.	4929.5
#2	5821.1	81643.	4905.2

Sample Name: CCB Acquired: 6/15/2015 12:24:32 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0009	.00001	.00395	.00152	-0.00038	.00002	.00340	.00451	-0.00002	-0.00006	-0.00003	.00005
Stddev	.00007	.00041	.00302	.00044	.00006	.00005	.00033	.00180	.00009	.00011	.00020	.00012
%RSD	74.595	3349.4	76.451	28.650	15.654	224.24	9.6529	39.965	532.88	182.66	738.93	237.03

#1	-0.00014	-0.00028	.00609	.00183	-0.00034	.00005	.00363	.00323	-0.00008	.00002	.00011	-0.00003
#2	-0.00004	.00030	.00181	.00121	-0.00042	-0.00001	.00317	.00578	.00005	-0.00014	-0.00017	.00014

Check ?	Chk Pass	None	Chk Pass									
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00100	-1.2631	W .00335	.00251	-0.00002	.00136	-0.06476	.00014	.00366	-0.00095	-0.00316	-0.00000
Stddev	.00204	.10080	.00161	.00329	.00004	.00020	.00063	.00006	.00011	.00087	.00091	.00030
%RSD	203.26	79.803	48.102	130.85	234.41	15.047	.97902	42.958	3.0962	91.219	28.740	42092.

#1	-0.00244	-1.9758	.00449	.00019	-0.00005	.00121	-0.06431	.00010	.00374	-0.00157	-0.00251	.00021
#2	.00044	-0.05503	.00221	.00483	.00001	.00150	-0.06521	.00019	.00358	-0.00034	-0.00380	-0.00021

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	None	Chk Pass						
High Limit			.00261									
Low Limit			-.00261									

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00146	.00256	-0.00110	.00013	.00015	.00040	-0.00059	-0.00712	-0.00088	-0.00319	.00158
Stddev	.00162	.00903	.00036	.00002	.00034	.00024	.00064	.00192	.00098	.00041	.00467
%RSD	110.65	352.09	32.941	13.817	219.82	59.072	109.39	26.982	112.27	12.947	294.61

#1	.00260	.00895	-0.00136	.00012	-0.00009	.00023	-0.00104	-0.00576	-0.00157	-0.00349	.00488
#2	.00032	-0.00382	-0.00085	.00015	.00039	.00057	-0.00013	-0.00848	-0.00018	-0.00290	-0.00172

Check ?	Chk Pass										
High Limit											
Low Limit											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5949.9	83926.	4967.6
Stddev	7.6	49.	15.2
%RSD	.12801	.05886	.30680

#1	5944.5	83961.	4978.4
#2	5955.3	83891.	4956.8

Sample Name: CCVL3331245 Acquired: 6/15/2015 12:27:12 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00988	.11100	.01644	.10013	.01065	.00115	W .12248	.22213	.00552	.01082	.01058	.01629
Stddev	.00037	.00086	.00407	.00046	.00019	.00008	.00095	.00042	.00010	.00045	.00008	.00016
%RSD	3.7746	.77352	24.739	.46400	1.8274	7.3100	.77516	.19119	1.8667	4.1267	.75527	1.0083

#1	.01015	.11039	.01356	.10046	.01051	.00109	.12180	.22183	.00559	.01050	.01064	.01618
#2	.00962	.11161	.01932	.09980	.01078	.00120	.12315	.22243	.00545	.01113	.01052	.01641

Check ?	Chk Pass	Chk Warn	Chk Pass									
Value							.10000					
Range							20.000%					

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10299	3.0085	.01115	.21516	.01074	.02038	1.0360	.04309	2.9670	.00926	-.00723	.00890
Stddev	.00126	.0798	.00078	.00551	.00004	.00033	.0037	.00002	.0015	.00018	.00322	.00113
%RSD	1.2192	2.6513	6.9831	2.5623	.37459	1.6227	.35863	.04534	.05088	1.9632	44.490	12.636

#1	.10388	2.9521	.01060	.21906	.01071	.02015	1.0333	.04310	2.9659	.00938	-.00950	.00970
#2	.10211	3.0649	.01170	.21127	.01076	.02061	1.0386	.04307	2.9681	.00913	-.00496	.00811

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01531	.52313	.10431	.01076	.01430	.01046	.01680	W .04577	.00906	.02032	.01628
Stddev	.00443	.01296	.00111	.00002	.00090	.00007	.00080	.01493	.00029	.00058	.00214
%RSD	28.944	2.4765	1.0620	.16927	6.2671	.69709	4.7793	32.616	3.2316	2.8723	13.161

#1	.01218	.51397	.10353	.01078	.01367	.01051	.01623	.03522	.00885	.02074	.01477
#2	.01845	.53229	.10510	.01075	.01494	.01041	.01737	.05633	.00927	.01991	.01780

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass						
Value								.06000			
Range								-20.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6004.5	84867.	5052.1
Stddev	8.4	98.	32.5
%RSD	.14022	.11509	.64319

#1	6010.4	84936.	5075.1
#2	5998.5	84798.	5029.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0011	.00292	-0.00086	.00145	-0.00020	.00006	.00161	.01358	.00001
Stddev	.00031	.00005	.00296	.00025	.00011	.00007	.00156	.00148	.00006
%RSD	274.20	1.8187	344.93	17.280	56.762	118.26	96.908	10.930	407.28

#1	-0.00033	.00289	-0.00295	.00127	-0.00028	.00001	.00051	.01463	-0.00003
#2	.00011	.00296	.00123	.00162	-0.00012	.00011	.00271	.01253	.00006

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00028	.00009	.00044	.00584	-0.12651	.00100	.00074	.00016	.00041
Stddev	.00009	.00016	.00005	.00134	.01421	.00085	.00132	.00005	.00001
%RSD	31.034	174.64	12.296	22.950	11.232	84.880	178.54	32.425	2.8778

#1	-0.00022	.00021	.00041	.00678	-0.11646	.00040	-0.00019	.00019	.00040
#2	-0.00034	-0.00002	.00048	.00489	-0.13656	.00160	.00168	.00012	.00042

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.04193	.00046	.00075	-0.00164	-0.00303	.00021	-0.00372	.00465	.00019
Stddev	.00447	.00022	.00558	.00100	.00071	.00058	.00111	.01489	.00032
%RSD	10.669	47.655	747.76	61.058	23.391	274.25	29.705	320.05	171.53

#1	-0.03876	.00062	.00469	-0.00093	-0.00353	-0.00020	-0.00450	.01518	.00042
#2	-0.04509	.00031	-0.00320	-0.00234	-0.00253	.00062	-0.00294	-0.00588	-0.00004

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00014	.00204	.00028	-0.00101	-0.03477	-0.00089	-0.00241	.00054
Stddev	.00004	.00078	.00033	.00030	.01361	.00032	.00003	.00239
%RSD	31.601	37.936	118.68	30.087	39.138	35.823	1.2175	442.01

#1	.00010	.00150	.00004	-0.00079	-0.04439	-0.00111	-0.00243	-0.00115
#2	.00017	.00259	.00051	-0.00122	-0.02515	-0.00066	-0.00239	.00223

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6036.9	85158.	4988.8
Stddev	.5	32.	5.7
%RSD	.00786	.03738	.11361

#1	6036.5	85135.	4984.7
#2	6037.2	85181.	4992.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04979	1.9492	.96442	.99079	2.1023	.04947	2.0090	49.998	.09884
Stddev	.00000	.0035	.00317	.00201	.0037	.00006	.0002	.047	.00005
%RSD	.00616	.18148	.32902	.20316	.17560	.12610	.00959	.09328	.04676

#1	.04979	1.9467	.96218	.98937	2.1049	.04943	2.0089	50.031	.09887
#2	.04979	1.9517	.96667	.99221	2.0997	.04952	2.0091	49.965	.09881

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48961	.19749	.25326	1.0114	48.965	1.0409	48.307	.49274	1.0413
Stddev	.00104	.00055	.00010	.0023	.074	.0020	.088	.00195	.0017
%RSD	.21235	.27981	.03826	.22764	.15153	.19518	.18162	.39647	.15854

#1	.48888	.19710	.25333	1.0130	48.913	1.0395	48.245	.49136	1.0402
#2	.49035	.19788	.25319	1.0097	49.018	1.0423	48.369	.49412	1.0425

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	52.509	.48886	10.079	.49017	1.9584	.49349	1.9513	10.106	1.9727
Stddev	.439	.00109	.009	.00026	.0023	.00118	.0015	.006	.0051
%RSD	.83561	.22303	.09110	.05243	.11793	.23830	.07824	.06426	.26027

#1	52.819	.48809	10.072	.49035	1.9567	.49266	1.9503	10.110	1.9691
#2	52.199	.48963	10.085	.48999	1.9600	.49432	1.9524	10.101	1.9764

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0192	.96096	1.0140	1.9480	1.9649	.48853	.49140	.53980
Stddev	.0009	.00086	.0046	.0005	.0187	.00102	.00065	.00420
%RSD	.08507	.08902	.44994	.02617	.95416	.20930	.13322	.77732

#1	1.0199	.96036	1.0108	1.9484	1.9516	.48781	.49094	.53684
#2	1.0186	.96157	1.0172	1.9477	1.9781	.48925	.49186	.54277

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5819.7	81919.	5085.0
Stddev	8.4	511.	3.4
%RSD	.14417	.62382	.06706

#1	5825.7	82281.	5087.4
#2	5813.8	81558.	5082.6

Sample Name: 160-12211-M-2-A @10 Acquired: 6/15/2015 12:34:55 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: 6/10 Custom ID2: Custom ID3:

Comment: 281101 6010B Q4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0015	-0.00806	-0.00009	.10815	.00146	.00010	.00146	50.406	.00025
Stddev	.00062	.00061	.00174	.00033	.00015	.00001	.00125	.023	.00002
%RSD	423.40	7.5345	1900.0	.30421	10.456	9.9090	85.845	.04536	8.8219
#1	-.00058	-.00849	-.00132	.10791	.00135	.00009	.00235	50.423	.00026
#2	.00029	-.00763	.00114	.10838	.00156	.00011	.00057	50.390	.00023

Check ? High Limit Low Limit
Chk Pass Chk Pass

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00005	.00340	.00166	-0.00441	5.3683	.03815	29.711	.00006	.01873
Stddev	.00015	.00007	.00017	.00074	.0647	.00081	.058	.00002	.00041
%RSD	315.00	1.9882	10.371	16.813	1.2049	2.1321	.19520	31.163	2.1881
#1	-.00015	.00335	.00178	-.00494	5.4140	.03758	29.670	.00007	.01844
#2	.00006	.00345	.00153	-.00389	5.3225	.03873	29.752	.00005	.01902

Check ? High Limit Low Limit
Chk Pass Chk Pass

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	277.41	.00066	.00303	-0.00175	W 190.74	-0.00082	.00764	.80500	-0.00052
Stddev	1.23	.00007	.00187	.00042	.09	.00126	.00043	.01917	.00071
%RSD	.44441	11.335	61.871	23.739	.04512	153.98	5.6220	2.3819	135.45
#1	278.28	.00061	.00170	-.00146	190.68	-.00170	.00733	.81856	-.00102
#2	276.54	.00071	.00435	-.00204	190.80	.00007	.00794	.79144	-.00002

Check ? High Limit Low Limit
Chk Pass Chk Pass Chk Pass Chk Pass Chk Warn 190.00 -0.01000 Chk Pass Chk Pass Chk Pass Chk Pass

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.73997	.00052	-0.00000	.00093	-0.00913	.00015	-0.00218	.00124
Stddev	.00092	.00448	.00037	.00001	.02274	.00041	.00011	.00214
%RSD	.12450	869.21	7510.2	.79539	249.12	281.71	4.9209	172.25
#1	.74062	.00368	.00026	.00094	-.02521	.00044	-.00210	.00275
#2	.73932	-.00265	-.00027	.00093	.00695	-.00014	-.00226	-.00027

Check ? High Limit Low Limit
Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5610.7	77973.	4949.9
Stddev	1.3	46.	3.4
%RSD	.02404	.05868	.06873
#1	5609.8	77941.	4952.3
#2	5611.7	78006.	4947.5

Sample Name: 160-12211-M-3-A @10 Acquired: 6/15/2015 12:37:33 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281101 6010B Q4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00066	-0.00746	.00297	.10655	.00171	.00004	.00278	48.784	.00005
Stddev	.00009	.00088	.00163	.00008	.00037	.00004	.00441	.020	.00016
%RSD	13.527	11.775	54.958	.07839	21.626	100.95	159.04	.04135	301.38

#1	-0.00073	-0.00683	.00181	.10649	.00145	.00001	-0.00035	48.770	.00017
#2	-0.00060	-0.00808	.00412	.10661	.00198	.00007	.00590	48.798	-0.00006

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00004	.00287	.00213	-0.00333	5.2368	.03636	29.571	.00010	.01711
Stddev	.00005	.00007	.00018	.00091	.0059	.00100	.049	.00000	.00015
%RSD	131.58	2.3115	8.5719	27.194	.11263	2.7400	.16534	1.3201	.88024

#1	-0.00008	.00282	.00226	-0.00397	5.2410	.03566	29.537	.00010	.01721
#2	-0.00000	.00291	.00200	-0.00269	5.2326	.03707	29.606	.00010	.01700

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	270.95	.00040	.00146	-0.00126	189.61	-0.00164	.00243	.76448	-0.00151
Stddev	.13	.00022	.00261	.00087	.07	.00062	.00051	.00640	.00070
%RSD	.04631	53.790	178.18	68.852	.03678	37.666	20.839	.83681	46.501

#1	271.04	.00056	.00331	-0.00065	189.66	-0.00207	.00207	.75996	-0.00201
#2	270.86	.00025	-0.00038	-0.00187	189.57	-0.00120	.00279	.76900	-0.00101

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.72226	.00355	.00007	-0.00017	-0.03210	.00056	-0.00218	.00178
Stddev	.00100	.00067	.00012	.00062	.00810	.00031	.00010	.00146
%RSD	.13838	18.902	160.77	366.85	25.252	55.883	4.7165	81.957

#1	.72156	.00308	-0.00001	-0.00060	-.02637	.00078	-0.00225	.00281
#2	.72297	.00403	.00016	.00027	-.03783	.00034	-0.00210	.00075

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5604.1	77992.	4906.5
Stddev	5.3	13.	9.3
%RSD	.09541	.01607	.18908

#1	5607.9	77983.	4913.0
#2	5600.3	78001.	4899.9

Sample Name: 160-12211-M-4-A @10 Acquired: 6/15/2015 12:40:09 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281101 6010B Q4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0024	-0.00703	.00265	.13108	.00078	.00014	.00039	49.874	.00047
Stddev	.00023	.00042	.00092	.00129	.00010	.00013	.00135	.025	.00001
%RSD	97.308	5.9777	34.875	.98655	13.344	94.881	349.55	.05045	1.3670

#1	-0.00040	-0.00733	.00330	.13016	.00071	.00023	-0.00057	49.892	.00046
#2	-0.00007	-0.00673	.00200	.13199	.00086	.00005	.00134	49.856	.00047

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00002	.00044	.00201	-0.00191	4.7236	.03375	58.753	.00009	.02684
Stddev	.00015	.00006	.00009	.00343	.0556	.00058	.147	.00003	.00005
%RSD	638.82	13.095	4.5472	179.59	1.1781	1.7313	.25031	35.858	.20330

#1	.00013	.00049	.00195	-0.00433	4.6842	.03334	58.649	.00007	.02680
#2	-0.00008	.00040	.00207	.00052	4.7629	.03417	58.857	.00012	.02688

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	239.10	.00045	.00160	-0.00177	F 204.19	-0.00068	.01658	2.5623	-0.0067
Stddev	.76	.00011	.00336	.00087	.28	.00008	.00206	.0255	.00104
%RSD	.31780	24.884	210.24	49.148	.13835	11.276	12.409	.99415	155.40

#1	238.56	.00053	.00397	-0.00115	203.99	-0.00063	.01513	2.5443	.00007
#2	239.64	.00037	-0.00078	-0.00238	204.39	-0.00074	.01804	2.5803	-0.00140

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-0.02000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0198	.00120	.00045	.00017	-0.01854	.00289	-0.00269	.00305
Stddev	.0008	.00068	.00031	.00104	.01846	.00008	.00002	.00073
%RSD	.08195	57.206	68.864	606.36	99.593	2.6548	.62835	24.045

#1	1.0204	.00168	.00067	-0.00057	-.00548	.00284	-0.00271	.00357
#2	1.0192	.00071	.00023	.00091	-.03159	.00295	-0.00268	.00253

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5566.5	77936.	4881.3
Stddev	6.6	414.	5.7
%RSD	.11907	.53097	.11701

#1	5571.2	78228.	4877.3
#2	5561.8	77643.	4885.4

Sample Name: 280-70424-E-1-B Acquired: 6/15/2015 12:42:45 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281303 6010C

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01250	.16973	.00198	.40396	.01990	.00009	-.00225	438.52	.00085
Stddev	.00017	.00144	.00097	.00483	.00027	.00005	.00077	6.72	.00001
%RSD	1.3631	.84936	48.753	1.1963	1.3349	54.047	34.337	1.5318	.70290

#1	.01238	.16871	.00267	.40054	.01971	.00013	-.00280	443.26	.00085
#2	.01262	.17075	.00130	.40737	.02009	.00006	-.00171	433.77	.00085

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01584	.01405	.00479	1.2600	12.554	.10702	298.63	.19014	.00497
Stddev	.00011	.00008	.00025	.0083	.054	.00185	1.49	.00017	.00010
%RSD	.69757	.56646	5.1201	.66116	.42884	1.7250	.49772	.08929	1.9275

#1	.01576	.01411	.00462	1.2659	12.516	.10572	299.68	.19026	.00490
#2	.01592	.01400	.00496	1.2541	12.592	.10833	297.58	.19002	.00503

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	248.71	.01733	.01120	W -.00303	F 729.43	-.00008	.00491	8.9137	.00026
Stddev	.88	.00009	.00090	.00014	7.38	.00089	.00448	.1107	.00056
%RSD	.35551	.50829	8.0580	4.5636	1.0115	1047.3	91.347	1.2417	216.39

#1	249.33	.01727	.01184	-.00293	724.21	-.00071	.00174	8.9919	.00066
#2	248.08	.01739	.01056	-.00313	734.64	.00054	.00808	8.8354	-.00014

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				10.000	200.00				
Low Limit				-.00300	-.02000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.0594	.00309	.00824	.00076	-.01049	.00226	.00518	-.00105
Stddev	.0851	.00069	.00005	.00133	.01071	.00046	.00051	.00162
%RSD	1.0553	22.189	.59544	175.99	102.12	20.266	9.7506	154.02

#1	8.1196	.00358	.00828	-.00018	-.01806	.00194	.00554	.00009
#2	7.9993	.00261	.00821	.00170	-.00292	.00259	.00482	-.00220

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5382.7	75330.	4903.9
Stddev	3.6	410.	38.4
%RSD	.06764	.54377	.78272

#1	5385.2	75040.	4876.8
#2	5380.1	75620.	4931.1

Sample Name: 280-70424-E-1-B SD@5 Acquired: 6/15/2015 12:45:37 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281303 6010C

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00263	.03845	-.00117	.08851	.00421	.00011	.00469	95.146	.00062
Stddev	.00062	.00040	.00071	.00013	.00026	.00000	.00333	.445	.00015
%RSD	23.674	1.0325	60.518	.14461	6.1855	.44320	71.084	.46782	23.638

#1	.00307	.03817	-.00067	.08860	.00403	.00011	.00704	95.461	.00072
#2	.00219	.03873	-.00168	.08841	.00440	.00011	.00233	94.832	.00051

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00363	.00322	.00158	.26757	2.4308	.02197	63.154	.04052	.00131
Stddev	.00038	.00007	.00012	.00205	.0317	.00005	.298	.00021	.00023
%RSD	10.565	2.1712	7.3001	.76710	1.3051	.24727	.47120	.51830	17.688

#1	.00390	.00327	.00166	.26612	2.4084	.02193	63.365	.04067	.00115
#2	.00336	.00317	.00150	.26902	2.4533	.02201	62.944	.04037	.00148

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	52.589	.00403	.00281	-.00197	153.63	-.00003	-.00362	1.8430	-.00106
Stddev	.321	.00012	.00057	.00027	.11	.00093	.00151	.0091	.00128
%RSD	.61069	3.0870	20.190	13.692	.06981	2924.8	41.587	.49281	120.74

#1	52.816	.00412	.00321	-.00217	153.71	.00062	-.00469	1.8495	-.00015
#2	52.362	.00394	.00241	-.00178	153.56	-.00069	-.00256	1.8366	-.00196

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.7109	.00116	.00183	.00140	.00089	-.00010	-.00107	.00091
Stddev	.0082	.00308	.00040	.00061	.03068	.00011	.00007	.00289
%RSD	.47963	265.03	22.008	43.538	3439.3	119.62	6.1335	316.18

#1	1.7167	.00334	.00211	.00097	-.02080	-.00018	-.00111	-.00113
#2	1.7051	-.00101	.00154	.00183	.02259	-.00001	-.00102	.00295

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5668.6	80565.	5042.3
Stddev	14.4	650.	5.4
%RSD	.25438	.80716	.10746

#1	5678.8	80105.	5038.5
#2	5658.4	81024.	5046.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06994	2.2378	1.0627	1.4497	2.2973	.05190	2.1010	W 518.94	.10751
Stddev	.00082	.0057	.0018	.0021	.0006	.00000	.0014	.62	.00081
%RSD	1.1733	.25599	.16644	.14651	.02843	.00282	.06726	.11896	.75416

#1	.06936	2.2418	1.0639	1.4512	2.2968	.05190	2.1020	519.38	.10808
#2	.07052	2.2337	1.0614	1.4482	2.2977	.05190	2.1000	518.51	.10693

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								500.00	
Low Limit								-.05000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51679	.22358	.27259	2.4134	67.813	1.2579	361.01	.71634	1.1066
Stddev	.00151	.00043	.00087	.0060	.055	.0026	1.43	.00087	.0032
%RSD	.29168	.19448	.31821	.24849	.08132	.20713	.39670	.12155	.29217

#1	.51786	.22389	.27198	2.4176	67.774	1.2561	362.03	.71696	1.1089
#2	.51573	.22327	.27321	2.4091	67.852	1.2598	360.00	.71573	1.1043

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	321.58	.51343	11.314	.48653	F 779.33	.52808	2.1569	20.615	2.0171
Stddev	.38	.00112	.033	.00087	.81	.00092	.0030	.005	.0072
%RSD	.11707	.21908	.29339	.17853	.10441	.17381	.13741	.02568	.35698

#1	321.84	.51423	11.337	.48714	779.90	.52744	2.1548	20.611	2.0222
#2	321.31	.51264	11.291	.48592	778.75	.52873	2.1590	20.619	2.0120

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-.02000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.6901	1.0232	1.0830	1.8298	2.0473	.52103	.50641	.57407
Stddev	.1498	.0025	.0009	.0046	.0380	.00138	.00041	.00362
%RSD	1.5461	.24302	.08396	.25115	1.8546	.26457	.08132	.62993

#1	9.5842	1.0249	1.0837	1.8331	2.0205	.52200	.50670	.57151
#2	9.7960	1.0214	1.0824	1.8266	2.0742	.52005	.50612	.57663

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5240.1	74158.	4830.5
Stddev	15.2	256.	18.9
%RSD	.29061	.34471	.39139

#1	5229.3	73978.	4817.1
#2	5250.9	74339.	4843.9

Sample Name: 280-70424-E-1-D MSD Acquired: 6/15/2015 12:51:12 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281303 6010C

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06837	2.2198	1.0619	1.4366	2.2593	.05136	2.0949	W 504.36	.10622
Stddev	.00066	.0072	.0003	.0016	.0022	.00016	.0025	1.74	.00015
%RSD	.95903	.32249	.02794	.11384	.09580	.30829	.11720	.34492	.14154

#1	.06883	2.2147	1.0622	1.4354	2.2608	.05147	2.0966	505.59	.10633
#2	.06790	2.2248	1.0617	1.4377	2.2578	.05125	2.0931	503.13	.10611

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								500.00	
Low Limit								-.05000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51408	.22165	.27219	2.3472	67.064	1.2396	353.40	.70363	1.0994
Stddev	.00177	.00021	.00053	.0005	.117	.0012	1.94	.00005	.0015
%RSD	.34439	.09451	.19289	.01971	.17396	.09930	.54995	.00742	.13391

#1	.51283	.22150	.27256	2.3475	66.982	1.2405	354.78	.70359	1.0984
#2	.51533	.22179	.27182	2.3469	67.147	1.2387	352.03	.70367	1.1004

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	313.64	.51031	11.260	.48101	F 764.29	.52606	2.1552	20.150	2.0006
Stddev	.17	.00067	.015	.00032	.03	.00111	.0088	.062	.0020
%RSD	.05392	.13194	.13627	.06688	.00404	.21111	.40871	.30634	.10122

#1	313.52	.51078	11.250	.48124	764.27	.52685	2.1615	20.106	1.9992
#2	313.76	.50983	11.271	.48078	764.31	.52528	2.1490	20.194	2.0020

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-.02000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.5110	1.0117	1.0697	1.8141	2.0625	.51572	.50043	.57040
Stddev	.0857	.0000	.0006	.0007	.0059	.00081	.00216	.00267
%RSD	.90101	.00021	.05372	.03984	.28740	.15657	.43256	.46832

#1	9.5716	1.0117	1.0701	1.8146	2.0583	.51515	.49890	.56851
#2	9.4504	1.0117	1.0693	1.8136	2.0667	.51629	.50196	.57229

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5262.7	75418.	4965.6
Stddev	13.2	63.	20.5
%RSD	.25110	.08339	.41195

#1	5272.0	75463.	4951.1
#2	5253.4	75374.	4980.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06251	1.0987	.19941	.49660	.12591	.04834	W - .01032	454.92	.05065
Stddev	.00032	.0006	.00023	.00109	.00049	.00005	.00160	.13	.00001
%RSD	.51745	.05038	.11690	.21974	.39288	.10514	15.463	.02902	.01364
#1	.06228	1.0991	.19957	.49583	.12626	.04830	-.01145	454.82	.05065
#2	.06274	1.0983	.19924	.49738	.12556	.04837	-.00919	455.01	.05064

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass					
High Limit							3.0000		
Low Limit							-.01000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06265	.06220	.05547	2.2115	32.820	.21276	306.71	.23325	.05640
Stddev	.00008	.00021	.00008	.0077	.003	.00073	2.19	.00011	.00000
%RSD	.13507	.33319	.13742	.34724	.00968	.34150	.71456	.04832	.00152
#1	.06259	.06235	.05553	2.2169	32.818	.21327	305.16	.23317	.05640
#2	.06271	.06206	.05542	2.2061	32.823	.21224	308.26	.23333	.05640

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	265.93	.06376	2.1053	.08959	F 721.99	.09928	.20935	13.755	.09636
Stddev	.23	.00008	.0086	.00048	.12	.00020	.00756	.043	.00040
%RSD	.08648	.12068	.40763	.53620	.01723	.20565	3.6093	.31179	.41083
#1	265.77	.06382	2.0992	.08925	721.91	.09943	.20401	13.786	.09664
#2	266.09	.06371	2.1113	.08993	722.08	.09914	.21469	13.725	.09608

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-.02000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.1136	.19081	.05885	.17399	.46137	.04921	.20056	.05903
Stddev	.0449	.00119	.00116	.00023	.02389	.00023	.00026	.00012
%RSD	.55274	.62483	1.9696	.13030	5.1771	.46867	.12863	.20574
#1	8.1453	.19165	.05803	.17415	.44448	.04937	.20038	.05912
#2	8.0819	.18997	.05967	.17383	.47826	.04905	.20074	.05895

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5338.4	75832.	4955.1
Stddev	7.3	104.	6.1
%RSD	.13723	.13699	.12371
#1	5343.6	75905.	4950.8
#2	5333.3	75758.	4959.4

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0117	50.602	-0.0037	.00613	.00027	.00003	.99654	.03073	-0.0123	.00093	.00040	.01640	51.060
Stddev	.00039	.190	.00238	.00004	.00000	.00006	.00381	.00323	.00026	.00002	.00013	.00006	.199
%RSD	33.200	.37614	640.83	.63182	.81871	185.27	.38195	10.513	21.277	1.6790	33.518	.36158	.38990

#1	-0.0089	50.468	.00131	.00610	.00028	.00008	.99385	.03301	-0.0104	.00094	.00050	.01636	51.201
#2	-0.0144	50.737	-0.0206	.00615	.00027	-0.0001	.99923	.02844	-0.0141	.00092	.00031	.01644	50.919

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10806	.00230	.00856	.00137	-0.0145	254.57	.00214	.00505	-0.0099	5.1221	.01328	.00657	.01156
Stddev	.02046	.00135	.00392	.00002	.00031	.11	.00015	.00041	.00013	.0159	.00038	.00075	.02660
%RSD	18.931	58.825	45.804	1.4643	21.107	.04418	7.2158	8.0434	12.905	.31016	2.8442	11.392	230.13

#1	.12252	.00134	.01134	.00135	-0.0167	254.49	.00203	.00477	-0.0090	5.1334	.01355	.00710	.03037
#2	.09359	.00326	.00579	.00138	-0.0124	254.65	.00225	.00534	-0.0108	5.1109	.01302	.00604	-0.0725

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00072	.00082	4.7728	.00255	-0.0051	9.6755	.00101	-0.0070	.20491
Stddev	.00122	.00005	.0052	.00051	.00039	.0181	.00048	.00017	.00135
%RSD	170.28	5.6618	.10820	20.112	76.370	.18693	47.965	23.930	.65915

#1	-0.0015	.00086	4.7765	.00291	-0.0079	9.6883	.00135	-0.0082	.20587
#2	.00158	.00079	4.7692	.00219	-0.0024	9.6627	.00067	-0.0058	.20396

Check ?	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5825.8	81859.	5078.3
Stddev	2.2	103.	33.8
%RSD	.03714	.12554	.66610

#1	5824.3	81786.	5102.2
#2	5827.3	81932.	5054.4

Sample Name: ccv-3330457 Acquired: 6/15/2015 12:59:33 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48995	.50559	.97678	.49408	.53158	.49367	-.05005	5.0048	.49923	.50094	.49575	.50312	2.5053
Stddev	.00186	.00095	.00536	.00134	.00041	.00041	.00208	.0006	.00007	.00028	.00033	.00079	.0027
%RSD	.37886	.18806	.54838	.27147	.07646	.08324	4.1576	.01302	.01327	.05501	.06578	.15670	.10609

#1	.48864	.50626	.98056	.49503	.53187	.49338	-.05152	5.0043	.49927	.50075	.49598	.50256	2.5035
#2	.49126	.50492	.97299	.49313	.53129	.49396	-.04858	5.0052	.49918	.50113	.49552	.50368	2.5072

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.125	1.0594	19.282	.49149	.49983	5.3476	.49901	.98498	1.0054	.11320	.99416	.98361	4.9738
Stddev	.013	.0012	.012	.00001	.00131	.0231	.00026	.00165	.0020	.00609	.00630	.00020	.0151
%RSD	.02662	.11095	.06268	.00204	.26204	.43245	.05294	.16787	.19471	5.3820	.63396	.02001	.30365

#1	49.116	1.0585	19.291	.49149	.50075	5.3312	.49883	.98615	1.0068	.11751	.99862	.98375	4.9845
#2	49.134	1.0602	19.274	.49148	.49890	5.3639	.49920	.98381	1.0040	.10889	.98970	.98347	4.9631

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass								
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.99110	.51561	.01852	.49998	1.0126	-.00639	.47832	.48273	.50698
Stddev	.00037	.00075	.00144	.00073	.0005	.02991	.00004	.00051	.00138
%RSD	.03706	.14450	7.7635	.14564	.05364	467.84	.00898	.10609	.27151

#1	.99136	.51509	.01750	.49947	1.0130	-.02755	.47835	.48237	.50795
#2	.99084	.51614	.01954	.50050	1.0122	.01476	.47829	.48309	.50600

Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5968.7	84309.	5074.1
Stddev	.3	154.	2.6
%RSD	.00567	.18269	.05177

#1	5968.9	84200.	5072.3
#2	5968.4	84418.	5076.0

Sample Name: CCB Acquired: 6/15/2015 13:02:00 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0040	-0.0053	W .00444	W .00271	-0.0003	.00008	.00254	.00793	.00014	-0.0006	.00003	.00102
Stddev	.00035	.00025	.00266	.00024	.00004	.00005	.00395	.00032	.00011	.00006	.00002	.00030
%RSD	87.573	46.727	59.917	8.7156	122.20	55.899	155.35	3.9988	78.424	89.023	77.485	29.781

#1	-0.0064	-0.0036	.00632	.00288	-0.0000	.00005	-0.0025	.00770	.00006	-0.0010	.00004	.00123
#2	-0.0015	-0.0071	.00256	.00254	-0.0006	.00012	.00533	.00815	.00021	-0.0002	.00001	.00081

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass	None	Chk Pass				
High Limit			.00440	.00156								
Low Limit			-.00440	-.00156								

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0176	-0.08611	-0.0136	.00303	.00004	.00127	.07410	.00007	.00206	.00070	.08876	.00312
Stddev	.00202	.12288	.00272	.00384	.00004	.00017	.00960	.00024	.00026	.00102	.00089	.00017
%RSD	114.46	142.69	200.38	126.54	114.81	13.631	12.948	322.35	12.604	145.03	1.0031	5.4182

#1	-0.0319	.00078	.00057	.00575	.00001	.00114	.08089	.00024	.00188	-0.0002	.08939	.00300
#2	-0.0034	-.17300	-.00328	.00032	.00007	.00139	.06732	-0.0009	.00224	.00143	.08813	.00324

Check ?	Chk Pass	None	Chk Pass									
High Limit												
Low Limit												

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00161	.02147	-0.0059	.00004	.00090	.00001	-0.0057	-0.00168	-0.00110	-0.00274	W .00295
Stddev	.00343	.00800	.00031	.00006	.00079	.00036	.00041	.00109	.00006	.00013	.00128
%RSD	213.84	37.282	53.322	169.25	88.409	4006.9	72.424	64.759	5.7044	4.6513	43.449

#1	-0.0082	.02713	-0.0081	.00008	.00034	-0.0025	-0.0028	-0.0091	-0.00115	-0.00283	.00205
#2	.00403	.01581	-0.0037	-0.0001	.00146	.00026	-0.0086	-0.00245	-0.00106	-0.00265	.00386

Check ?	Chk Pass	Chk Warn									
High Limit											.00238
Low Limit											-.00238

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6088.6	86610.	5107.0
Stddev	3.5	140.	17.3
%RSD	.05683	.16126	.33859

#1	6091.0	86709.	5094.7
#2	6086.1	86512.	5119.2

Sample Name: CCVL3331245 Acquired: 6/15/2015 13:04:40 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01054	.11002	.01444	.10123	.01133	.00099	W .12490	.22559	.00533	.01080	.01065	.01673
Stddev	.00026	.00043	.00066	.00090	.00009	.00002	.00363	.00394	.00021	.00018	.00011	.00008
%RSD	2.4739	.39131	4.5789	.88993	.80300	2.0817	2.9060	1.7450	3.8819	1.6574	1.0364	.49212

#1	.01073	.10971	.01397	.10059	.01140	.00100	.12746	.22838	.00518	.01092	.01057	.01667
#2	.01036	.11032	.01490	.10187	.01127	.00097	.12233	.22281	.00548	.01067	.01072	.01678

Check ?	Chk Pass	Chk Warn	Chk Pass									
Value							.10000					
Range							20.000%					

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10421	3.1339	.01136	.21684	.01054	.02061	1.1764	.04284	2.9693	.00844	.06767	.00919
Stddev	.00146	.0154	.00050	.00356	.00003	.00018	.0050	.00017	.0042	.00059	.00463	.00258
%RSD	1.3992	.49170	4.3982	1.6418	.24118	.86012	.42184	.40421	.14245	6.9395	6.8385	28.042

#1	.10318	3.1230	.01171	.21432	.01053	.02049	1.1799	.04272	2.9723	.00802	.06440	.00737
#2	.10524	3.1448	.01100	.21935	.01056	.02074	1.1729	.04296	2.9663	.00885	.07094	.01102

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01330	.53282	.10372	.01087	.01590	.01060	.01630	F .07818	.00895	.01992	.01745
Stddev	.00220	.00887	.00124	.00003	.00077	.00043	.00046	.03828	.00001	.00092	.00072
%RSD	16.527	1.6648	1.1943	.27066	4.8532	4.0281	2.8260	48.964	.09292	4.5991	4.1495

#1	.01486	.52654	.10285	.01085	.01535	.01029	.01663	.05111	.00895	.01927	.01694
#2	.01175	.53909	.10460	.01089	.01644	.01090	.01597	.10525	.00894	.02057	.01796

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass						
Value								.06000			
Range								30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6109.9	87117.	5121.0
Stddev	12.4	169.	4.9
%RSD	.20352	.19442	.09555

#1	6118.7	87237.	5124.5
#2	6101.1	86998.	5117.6

Sample Name: 280-70424-E-2-D Acquired: 6/15/2015 13:07:17 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281303 6010C

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00143	2.1373	.00227	.06721	.11178	.00016	-.00560	53.980	.00047
Stddev	.00035	.0214	.00081	.00015	.00022	.00012	.00076	.022	.00007
%RSD	24.671	1.0027	35.673	.22080	.19435	73.401	13.553	.03991	15.084
#1	.00118	2.1525	.00284	.06731	.11163	.00025	-.00506	53.996	.00052
#2	.00168	2.1222	.00170	.06710	.11193	.00008	-.00613	53.965	.00042

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00235	.03069	.00420	2.4303	4.2654	.01215	41.066	.06642	.00756
Stddev	.00023	.00072	.00027	.0063	.0531	.00341	.025	.00049	.00018
%RSD	9.6891	2.3506	6.4408	.26080	1.2444	28.027	.06078	.73542	2.4255
#1	.00219	.03120	.00401	2.4348	4.2279	.01456	41.084	.06607	.00743
#2	.00251	.03018	.00440	2.4259	4.3030	.00974	41.048	.06676	.00769

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.979	.01824	.08171	-.00039	17.409	-.00062	-.00282	11.232	-.00042
Stddev	.218	.00068	.00260	.00035	.104	.00009	.00003	.030	.00027
%RSD	1.8182	3.7456	3.1855	90.636	.59741	14.540	1.1501	.26524	63.626
#1	11.825	.01872	.08355	-.00064	17.483	-.00055	-.00280	11.253	-.00023
#2	12.133	.01776	.07987	-.00014	17.336	-.00068	-.00284	11.211	-.00061

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.61436	.00059	.07323	-.00032	.00177	.00322	.00484	.00497
Stddev	.00081	.00018	.00238	.00117	.05133	.00002	.00008	.00158
%RSD	.13184	30.642	3.2547	363.53	2906.8	.61001	1.7503	31.821
#1	.61493	.00071	.07491	.00051	-.03453	.00323	.00490	.00609
#2	.61379	.00046	.07154	-.00115	.03806	.00320	.00478	.00385

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5904.4	83594.	5116.4
Stddev	21.8	50.	2.4
%RSD	.36999	.05989	.04782
#1	5888.9	83630.	5118.2
#2	5919.8	83559.	5114.7

Sample Name: 280-70424-E-3-B Acquired: 6/15/2015 13:09:52 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281303 6010C

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0019	-0.1101	.00222	1.9603	.01143	.00014	.00021	300.11	.00064
Stddev	.00028	.00075	.00080	.0043	.00012	.00005	.00260	1.72	.00005
%RSD	144.36	6.8565	36.271	.21987	1.0196	38.883	1224.0	.57364	8.1375

#1	-0.0039	-0.01047	.00279	1.9634	.01151	.00017	.00205	298.89	.00061
#2	.00000	-0.01154	.00165	1.9573	.01135	.00010	-.00163	301.33	.00068

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00279	.00049	.00302	2.4710	12.963	.19417	223.73	2.2903	.00002
Stddev	.00001	.00033	.00041	.0126	.009	.00087	.05	.0014	.00000
%RSD	.50477	66.511	13.598	.51109	.07148	.44805	.02283	.05960	22.892

#1	.00280	.00026	.00331	2.4799	12.957	.19355	223.76	2.2894	.00002
#2	.00278	.00073	.00273	2.4621	12.970	.19478	223.69	2.2913	.00002

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	329.00	.00540	.00001	W -0.0312	F 486.20	.00053	-0.00391	8.0892	-0.0136
Stddev	.02	.00011	.00112	.00004	1.17	.00101	.00150	.0274	.00136
%RSD	.00463	2.0489	20482.	1.2588	.23972	190.01	38.283	.33850	100.06

#1	328.98	.00532	-.00079	-.00315	487.02	.00125	-.00497	8.0698	-.00232
#2	329.01	.00548	.00080	-.00310	485.37	-.00018	-.00285	8.1086	-.00040

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				10.000	200.00				
Low Limit				-.00300	-.02000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.4836	.00144	.00053	-0.0194	W -0.05196	.00035	-0.00018	.00208
Stddev	.0519	.00012	.00008	.00163	.00461	.00049	.00021	.00186
%RSD	.54703	8.5395	15.950	84.300	8.8671	137.83	115.55	89.444

#1	9.4469	.00136	.00047	-.00309	-.04871	.00070	-.00003	.00076
#2	9.5203	.00153	.00059	-.00078	-.05522	.00001	-.00033	.00339

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit					45.000			
Low Limit					-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5448.7	77248.	5014.1
Stddev	9.0	7.	4.6
%RSD	.16573	.00965	.09161

#1	5442.3	77243.	5017.3
#2	5455.1	77253.	5010.8

Sample Name: 280-70424-E-4-B Acquired: 6/15/2015 13:12:44 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281303 6010C

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00008	.01061	-.00449	.08345	.08797	.00010	-.00108	54.767	.00074
Stddev	.00023	.00042	.00096	.00005	.00066	.00007	.00290	.246	.00007
%RSD	288.92	4.0040	21.419	.06527	.75283	73.084	268.81	.44994	9.4727

#1	.00024	.01031	-.00381	.08341	.08750	.00005	-.00313	54.593	.00078
#2	-.00008	.01091	-.00517	.08349	.08844	.00015	.00097	54.941	.00069

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00011	.00059	.00157	.01799	3.8199	.01531	61.858	.00090	.00234
Stddev	.00011	.00016	.00043	.00191	.0008	.00092	.071	.00004	.00005
%RSD	106.69	27.714	27.756	10.621	.02115	6.0379	.11506	4.4333	2.1579

#1	-.00019	.00047	.00187	.01935	3.8205	.01465	61.909	.00093	.00238
#2	-.00003	.00070	.00126	.01664	3.8194	.01596	61.808	.00087	.00230

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	18.716	.00059	.00488	-.00164	19.779	-.00240	.00826	6.0692	-.00045
Stddev	.403	.00027	.00131	.00026	.039	.00098	.00146	.0394	.00032
%RSD	2.1508	45.480	26.779	15.952	.19555	41.042	17.646	.64883	70.909

#1	18.431	.00078	.00581	-.00182	19.806	-.00309	.00929	6.0413	-.00068
#2	19.001	.00040	.00396	-.00145	19.752	-.00170	.00723	6.0970	-.00022

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.99996	-.00085	.00083	.00054	.01875	.00019	-.00110	.00177
Stddev	.00494	.00270	.00014	.00009	.00143	.00070	.00021	.00078
%RSD	.49438	318.30	16.773	16.759	7.6481	367.69	19.023	43.912

#1	.99646	-.00276	.00073	.00048	.01774	-.00031	-.00125	.00122
#2	1.0035	.00106	.00093	.00061	.01977	.00069	-.00095	.00232

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5847.0	83068.	5085.5
Stddev	9.9	294.	26.8
%RSD	.16958	.35352	.52781

#1	5840.0	82860.	5104.5
#2	5854.0	83276.	5066.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00018	.23550	-.00146	.11660	.08348	.00002	-.00116	118.90	.00068
Stddev	.00036	.00142	.00366	.00112	.00015	.00012	.00133	.41	.00011
%RSD	202.12	.60309	250.69	.95660	.18320	763.65	114.68	.34705	15.641

#1	.00043	.23450	.00113	.11739	.08359	.00010	-.00022	119.19	.00061
#2	-.00008	.23651	-.00405	.11581	.08337	-.00007	-.00210	118.60	.00076

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00010	.00249	.00218	.40833	6.5329	.03212	99.917	.08753	.00059
Stddev	.00039	.00005	.00056	.00019	.0970	.00023	.215	.00017	.00044
%RSD	401.31	1.9462	25.503	.04650	1.4851	.72252	.21511	.19327	75.369

#1	-.00018	.00246	.00257	.40846	6.6015	.03196	99.765	.08741	.00090
#2	.00038	.00253	.00179	.40820	6.4643	.03229	100.07	.08765	.00027

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.999	.00261	.01429	.00029	40.208	-.00021	.03695	8.1880	-.00140
Stddev	.015	.00002	.00125	.00118	.092	.00081	.00375	.0800	.00038
%RSD	.05486	.70144	8.7619	410.92	.22804	375.48	10.143	.97678	27.445

#1	26.989	.00262	.01518	-.00055	40.273	-.00078	.03960	8.2446	-.00113
#2	27.010	.00260	.01341	.00112	40.143	.00036	.03430	8.1315	-.00167

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.6544	.00269	.00858	.00016	-.00652	.00055	-.00035	.00119
Stddev	.0042	.00048	.00013	.00117	.02124	.00008	.00032	.00160
%RSD	.25309	17.819	1.5689	752.03	325.91	14.633	90.955	133.84

#1	1.6573	.00235	.00849	.00098	.00850	.00061	-.00012	.00006
#2	1.6514	.00303	.00868	-.00067	-.02154	.00050	-.00057	.00232

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5658.2	81212.	5023.9
Stddev	21.2	320.	3.0
%RSD	.37470	.39361	.06003

#1	5673.2	81438.	5021.8
#2	5643.2	80986.	5026.0

Sample Name: 280-70424-E-6-B Acquired: 6/15/2015 13:17:57 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 281303 6010C

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00011	.00678	.00005	.12457	.05036	.00012	-.00269	69.155	.00047
Stddev	.00033	.00029	.00065	.00042	.00014	.00003	.00159	.123	.00009
%RSD	311.05	4.2846	1267.1	.33591	.27473	21.123	59.019	.17777	18.400

#1	.00034	.00698	.00051	.12487	.05046	.00010	-.00381	69.242	.00053
#2	-.00013	.00657	-.00041	.12427	.05026	.00014	-.00157	69.068	.00041

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00045	.00061	.00199	.86239	5.0496	.02829	49.794	.03131	.00070
Stddev	.00028	.00009	.00032	.00394	.0259	.00084	.036	.00002	.00009
%RSD	62.873	15.577	16.269	.45664	.51360	2.9813	.07190	.06371	13.252

#1	-.00065	.00068	.00176	.85960	5.0679	.02769	49.768	.03129	.00077
#2	-.00025	.00054	.00222	.86517	5.0312	.02889	49.819	.03132	.00063

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	35.454	.00096	.01275	-.00048	24.248	-.00089	W -.00524	9.3835	-.00058
Stddev	.262	.00000	.00209	.00185	.083	.00139	.00244	.0047	.00130
%RSD	.73845	.44873	16.435	384.77	.34372	155.71	46.617	.05012	225.12

#1	35.639	.00096	.01126	.00083	24.307	-.00187	-.00697	9.3802	-.00150
#2	35.269	.00096	.01423	-.00179	24.189	.00009	-.00352	9.3869	.00034

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass					
High Limit							5.0000		
Low Limit							-.00500		

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.2412	.00189	.00019	.00042	-.01223	-.00029	-.00130	.00005
Stddev	.0023	.00064	.00010	.00062	.02317	.00050	.00008	.00227
%RSD	.18259	33.790	51.968	147.66	189.51	170.43	5.8933	4476.0

#1	1.2428	.00234	.00026	.00086	-.02861	-.00065	-.00124	-.00155
#2	1.2396	.00144	.00012	-.00002	.00416	.00006	-.00135	.00165

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5738.0	81786.	4947.5
Stddev	7.1	52.	17.0
%RSD	.12375	.06362	.34355

#1	5732.9	81749.	4935.4
#2	5743.0	81823.	4959.5

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00000	51.251	-0.0249	.00486	.00074	.00005	1.0069	.01459	-0.00127	.00103	.00036	.01668	51.513
Stddev	.00092	.141	.00182	.00009	.00002	.00011	.0008	.00314	.00012	.00014	.00001	.00007	.174
%RSD	78446.	.27592	72.822	1.8384	2.9333	232.61	.07747	21.544	9.6945	13.324	1.6620	.39991	.33860

#1	.00065	51.151	-.00121	.00479	.00073	.00013	1.0075	.01236	-.00136	.00113	.00035	.01673	51.390
#2	-.00065	51.351	-.00378	.00492	.00076	-.00003	1.0064	.01681	-.00119	.00094	.00036	.01664	51.636

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.07136	.00169	.00280	.00144	-.00170	257.06	.00191	.00866	-.00167	5.0471	.01228	.00388	.00170
Stddev	.08543	.00059	.00337	.00000	.00001	.65	.00015	.00212	.00150	.0046	.00423	.00366	.00107
%RSD	119.72	34.804	120.11	.25422	.53842	.25362	7.8641	24.516	89.503	.09127	34.407	94.309	62.767

#1	.01095	.00127	.00042	.00144	-.00169	256.60	.00180	.01016	-.00273	5.0503	.01527	.00129	.00095
#2	.13177	.00211	.00519	.00144	-.00170	257.52	.00202	.00716	-.00061	5.0438	.00929	.00646	.00246

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00040	.00052	4.8260	.00235	.00033	9.8004	.00152	-.00086	.20782
Stddev	.00049	.00023	.0023	.00013	.00144	.0141	.00067	.00028	.00303
%RSD	124.84	43.395	.04776	5.4372	442.52	.14336	44.108	32.194	1.4588

#1	.00005	.00036	4.8244	.00244	-.00069	9.7904	.00104	-.00106	.20996
#2	.00074	.00068	4.8276	.00226	.00134	9.8103	.00199	-.00066	.20567

Check ?	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5736.3	80253.	4969.4
Stddev	5.5	55.	20.1
%RSD	.09625	.06888	.40491

#1	5740.2	80214.	4983.7
#2	5732.4	80292.	4955.2

Sample Name: ccv-3330457 Acquired: 6/15/2015 13:23:08 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49484	.51313	.98800	.49916	.53176	.49919	-.04891	5.0495	.50462	.50592	.50062	.50656	2.5260
Stddev	.00032	.00060	.00540	.00036	.00182	.00013	.00236	.0195	.00007	.00004	.00098	.00028	.0037
%RSD	.06398	.11658	.54694	.07174	.34286	.02583	4.8177	.38697	.01379	.00812	.19592	.05550	.14532

#1	.49462	.51271	.99182	.49941	.53047	.49928	-.04724	5.0357	.50458	.50595	.49992	.50636	2.5286
#2	.49507	.51355	.98418	.49891	.53304	.49910	-.05058	5.0633	.50467	.50589	.50131	.50675	2.5234

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.712	1.0595	19.508	.49748	.50301	5.3318	.50405	.99119	1.0193	.05240	1.0064	.98771	5.0470
Stddev	.022	.0025	.006	.00041	.00065	.0081	.00044	.00602	.0004	.00052	.0000	.00033	.0205
%RSD	.04336	.23551	.02833	.08229	.12946	.15256	.08729	.60685	.04014	.99310	.00218	.03305	.40675

#1	49.727	1.0577	19.504	.49719	.50348	5.3376	.50374	.99545	1.0190	.05277	1.0064	.98748	5.0325
#2	49.697	1.0613	19.512	.49777	.50255	5.3261	.50436	.98694	1.0196	.05204	1.0064	.98794	5.0616

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass								
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.99835	.51718	.01951	.50370	1.0212	-.00323	.48453	.48976	.50835
Stddev	.00032	.00114	.00278	.00008	.0017	.01536	.00005	.00074	.00258
%RSD	.03210	.21967	14.276	.01638	.16622	474.96	.01065	.15138	.50678

#1	.99857	.51637	.01754	.50365	1.0224	.00763	.48450	.49028	.50653
#2	.99812	.51798	.02147	.50376	1.0200	-.01409	.48457	.48924	.51018

Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5910.9	83421.	5034.4
Stddev	.1	39.	24.2
%RSD	.00245	.04694	.48020

#1	5911.0	83449.	5017.3
#2	5910.8	83394.	5051.5

Sample Name: CCB Acquired: 6/15/2015 13:25:36 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0005	.00030	.00051	W .00208	.00031	.00016	.00278	.00848	.00013	-0.00037	-0.00002	-0.00016
Stddev	.00030	.00032	.00223	.00094	.00005	.00005	.00357	.00217	.00033	.00017	.00004	.00029
%RSD	630.39	104.08	441.41	45.380	16.424	33.538	128.46	25.561	249.46	45.220	185.98	179.02

#1	.00017	.00053	-.00107	.00274	.00028	.00012	.00530	.00695	-.00010	-.00025	.00001	.00004
#2	-.00026	.00008	.00208	.00141	.00035	.00019	.00025	.01002	.00037	-.00048	-.00005	-.00037

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.00156								
Low Limit				-.00156								

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00280	-0.04604	-0.00130	.00094	-0.00005	.00111	.03248	.00016	.00121	-0.00178	.03937	.00255
Stddev	.00099	.01082	.00098	.00128	.00004	.00009	.00424	.00024	.00222	.00074	.00242	.00220
%RSD	35.492	23.492	75.452	135.87	76.504	8.2988	13.050	153.19	184.40	41.364	6.1518	86.524

#1	-.00210	-.05369	-.00060	.00004	-.00002	.00118	.02948	.00033	.00278	-.00126	.03766	.00099
#2	-.00351	-.03839	-.00199	.00185	-.00008	.00105	.03547	-.00001	-.00037	-.00230	.04108	.00411

Check ?	Chk Pass	None	Chk Pass									
High Limit												
Low Limit												

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00138	.00660	-0.00077	-0.00001	.00065	-0.00007	-0.00030	-0.00602	-0.00087	-0.00324	-0.00054
Stddev	.00007	.01435	.00070	.00018	.00061	.00021	.00086	.02711	.00009	.00006	.00069
%RSD	5.0733	217.39	90.700	2607.5	92.947	285.70	280.50	450.15	10.011	1.7365	128.51

#1	-.00143	-.00354	-.00028	.00012	.00108	-.00022	.00030	-.02519	-.00081	-.00328	-.00005
#2	-.00133	.01674	-.00126	-.00014	.00022	.00008	-.00091	.01315	-.00093	-.00320	-.00103

Check ?	Chk Pass										
High Limit											
Low Limit											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6005.1	85998.	5072.3
Stddev	6.7	165.	.2
%RSD	.11226	.19140	.00377

#1	6009.8	86114.	5072.2
#2	6000.3	85881.	5072.5

Sample Name: CCVL3331245 Acquired: 6/15/2015 13:28:18 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01096	.11150	.01554	.10194	.01090	.00118	W .12786	.22118	.00546	.01088	.01057	.01718
Stddev	.00034	.00063	.00089	.00034	.00015	.00000	.00095	.00137	.00013	.00044	.00022	.00029
%RSD	3.0919	.56762	5.7152	.33407	1.3443	.38146	.74216	.61800	2.3198	4.0190	2.1019	1.6839

#1	.01072	.11105	.01492	.10218	.01100	.00119	.12719	.22021	.00555	.01057	.01073	.01738
#2	.01120	.11195	.01617	.10170	.01079	.00118	.12853	.22214	.00538	.01119	.01041	.01697

Check ?	Chk Pass	Chk Warn	Chk Pass									
Value							.10000					
Range							20.000%					

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10532	3.0954	.01147	.21778	.01066	.02067	1.1549	.04321	3.0050	.00953	.03121	.00924
Stddev	.00051	.0204	.00135	.00164	.00008	.00030	.0161	.00051	.0066	.00191	.00489	.00035
%RSD	.48417	.65864	11.798	.75396	.70775	1.4465	1.3939	1.1911	.21880	20.078	15.674	3.7399

#1	.10569	3.1099	.01051	.21894	.01071	.02088	1.1662	.04285	3.0003	.00817	.03467	.00900
#2	.10496	3.0810	.01243	.21662	.01061	.02046	1.1435	.04357	3.0096	.01088	.02775	.00948

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01593	.52295	.10397	.01103	.01558	.01020	.01663	F .03358	.00927	.01998	.01719
Stddev	.00093	.02710	.00016	.00010	.00163	.00013	.00039	.01689	.00006	.00057	.00067
%RSD	5.8590	5.1817	.15852	.89766	10.487	1.2789	2.3205	50.297	.61227	2.8526	3.9237

#1	.01659	.54211	.10385	.01096	.01673	.01029	.01691	.02163	.00931	.02039	.01671
#2	.01527	.50379	.10409	.01110	.01442	.01010	.01636	.04552	.00923	.01958	.01766

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass						
Value								.06000			
Range								-30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6030.4	86272.	5068.2
Stddev	6.8	26.	29.0
%RSD	.11275	.02988	.57184

#1	6025.6	86253.	5047.7
#2	6035.3	86290.	5088.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	s -.00117	k -.00897	k .00285	-.00146	k -.00061	k .00001	kW .00832	k -.00344	k -.00022
Stddev	.00057	.00050	.00040	.00012	.00035	.00002	.00058	.00044	.00009
%RSD	49.047	5.5993	14.178	8.3818	56.897	167.57	6.9449	12.771	41.482
#1	s -.00158	k -.00862	k .00256	-.00155	k -.00036	k -.00000	k .00873	k -.00375	k -.00016
#2	-.00076	-.00933	.00314	-.00137	-.00085	.00003	.00791	-.00313	-.00029
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass
High Limit							.00500		
Low Limit							-.00500		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k -.00026	k .00050	sW -.00736	k -.00711	-.12336	k .00028	s .00073	s -.00005	.00054
Stddev	.00013	.00009	.00110	.00075	.02950	.00211	.00137	.00001	.00003
%RSD	49.481	18.253	14.874	10.549	23.911	814.59	187.05	24.475	5.2330
#1	k -.00017	k .00057	s -.00659	k -.00658	-.10250	k .00190	s .00171	s -.00006	.00052
#2	-.00035	.00044	-.00814	-.00764	-.14422	-.00134	-.00024	-.00004	.00056
Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			.00500						
Low Limit			-.00500						

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.01683	k .00047	.00065	k -.00214	k .01551	k -.00247	kW -.00599	kF .16563	k -.00003
Stddev	.00309	.00012	.00008	.00008	.00458	.00041	.00039	.10610	.00017
%RSD	18.343	25.155	11.864	3.8550	29.511	16.657	6.4773	64.062	517.08
#1	-.01901	k .00055	.00071	k -.00219	k .01227	k -.00276	k -.00626	k .24066	k .00009
#2	-.01465	.00038	.00060	-.00208	.01875	-.00218	-.00571	.09060	-.00015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Fail	Chk Pass
High Limit							.00500	.10000	
Low Limit							-.00500	-.10000	

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00008	s .00195	s .00050	k .00247	s -.02010	s -.00109	s -.00319	k .00396
Stddev	.00003	.00100	.00021	.00047	.01833	.00000	.00007	.00021
%RSD	35.200	51.244	42.658	19.227	91.197	.11998	2.2834	5.3503
#1	.00010	s .00125	s .00035	k .00213	s -.00714	s -.00109	s -.00324	k .00411
#2	.00006	.00266	.00065	.00280	-.03306	-.00109	-.00314	.00381
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	10416.	^ *****	8923.4
Stddev	11.	----	1091.5
%RSD	.10383	----	12.232
#1	10423.	^ ----	8151.6
#2	10408.	142690.	9695.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0000	.00372	-0.00041	-0.00002	-0.00001	.00005	.00161	.01417	.00006
Stddev	.00025	.00034	.00123	.00030	.00004	.00000	.00011	.00033	.00007
%RSD	11709.	9.0365	301.35	1256.2	420.42	1.2674	6.7512	2.3553	104.90

#1	-0.00018	.00396	.00046	.00019	.00002	.00005	.00169	.01394	.00002
#2	.00017	.00348	-.00128	-.00023	-.00004	.00005	.00154	.01441	.00011

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00007	.00016	.00054	.00122	-.09186	-0.00012	.00490	.00016	.00082
Stddev	.00005	.00009	.00012	.00111	.07175	.00152	.00146	.00002	.00033
%RSD	80.843	58.581	21.903	91.006	78.110	1266.1	29.905	9.6131	39.484

#1	-0.00003	.00009	.00045	.00200	-.04113	-.00119	.00386	.00017	.00059
#2	-0.00010	.00022	.00062	.00043	-.14260	.00095	.00593	.00015	.00105

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.01853	-.00004	.00264	.00041	.01823	-.00141	-.00467	.02712	-.00061
Stddev	.00073	.00009	.00054	.00017	.00265	.00007	.00106	.01110	.00024
%RSD	3.9431	245.30	20.634	41.871	14.523	4.6174	22.635	40.945	40.315

#1	-.01802	.00003	.00302	.00029	.02010	-.00146	-.00542	.03497	-.00078
#2	-.01905	-.00010	.00225	.00053	.01635	-.00137	-.00392	.01927	-.00043

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00007	.00168	.00051	-.00151	-.01268	-.00104	.00175	.00071
Stddev	.00002	.00090	.00023	.00074	.04408	.00013	.00009	.00071
%RSD	29.207	53.801	45.523	48.792	347.72	12.789	4.9224	99.877

#1	.00009	.00104	.00035	-.00203	-.04385	-.00095	.00169	.00021
#2	.00006	.00231	.00067	-.00099	.01849	-.00114	.00181	.00121

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6036.3	85883.	5060.3
Stddev	5.3	231.	6.1
%RSD	.08705	.26947	.12096

#1	6040.0	85719.	5056.0
#2	6032.6	86046.	5064.6

Sample Name: LCS 280-281323/2-A Acquired: 6/15/2015 14:17:23 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281323 6010C

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05080	1.9967	.98570	1.0261	2.1684	.05094	2.0620	50.971	.10239
Stddev	.00082	.0000	.00154	.0010	.0028	.00004	.0008	.039	.00003
%RSD	1.6047	.00072	.15606	.10171	.12872	.08081	.03941	.07604	.02787

#1	.05022	1.9967	.98679	1.0253	2.1665	.05097	2.0626	50.943	.10241
#2	.05137	1.9967	.98461	1.0268	2.1704	.05091	2.0615	50.998	.10237

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50064	.20126	.25849	1.0120	50.138	1.0682	49.622	.50527	1.0591
Stddev	.00111	.00018	.00006	.0035	.014	.0011	.082	.00075	.0019
%RSD	.22094	.08812	.02250	.34850	.02702	.10590	.16603	.14761	.17492

#1	.49986	.20139	.25845	1.0145	50.129	1.0674	49.680	.50580	1.0578
#2	.50143	.20114	.25853	1.0095	50.148	1.0690	49.564	.50475	1.0604

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	52.906	.49500	10.330	.50178	2.0457	.50735	2.0124	10.345	2.0110
Stddev	.101	.00130	.007	.00118	.0027	.00485	.0086	.001	.0013
%RSD	.19176	.26231	.06914	.23573	.13080	.95664	.42550	.01305	.06199

#1	52.834	.49408	10.325	.50095	2.0476	.51078	2.0185	10.346	2.0119
#2	52.978	.49592	10.335	.50262	2.0439	.50392	2.0064	10.344	2.0101

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0387	.98042	1.0384	1.9946	2.0181	.49639	.50208	.55001
Stddev	.0013	.00083	.0017	.0027	.0273	.00201	.00269	.00061
%RSD	.12068	.08467	.16282	.13579	1.3503	.40437	.53487	.11181

#1	1.0378	.98100	1.0396	1.9965	1.9988	.49781	.50398	.54957
#2	1.0396	.97983	1.0372	1.9927	2.0373	.49497	.50019	.55044

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5733.4	80598.	4963.4
Stddev	19.6	105.	14.3
%RSD	.34105	.12969	.28828

#1	5747.2	80524.	4973.6
#2	5719.5	80672.	4953.3

Sample Name: 280-70490-A-1-B Acquired: 6/15/2015 14:19:47 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 281323 6010C

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00204	.00547	.02098	.10238	2.3499	.00023	.00031	65.556	.00037
Stddev	.00011	.00023	.00068	.00161	.0005	.00003	.00304	.002	.00016
%RSD	5.1654	4.2712	3.2543	1.5741	.01962	14.611	973.89	.00264	44.269

#1	.00196	.00530	.02050	.10124	2.3496	.00026	-.00184	65.554	.00048
#2	.00211	.00564	.02146	.10352	2.3503	.00021	.00246	65.557	.00025

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01628	.00038	.00355	20.987	.63929	.13824	36.451	W 18.255	.01027
Stddev	.00006	.00009	.00037	.018	.05557	.00348	.011	.065	.00036
%RSD	.37762	23.174	10.505	.08464	8.6921	2.5169	.03021	.35692	3.5066

#1	.01632	.00032	.00328	20.999	.60000	.14070	36.459	18.301	.01002
#2	.01624	.00045	.00381	20.974	.67858	.13578	36.443	18.208	.01053

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								10.000	
Low Limit								-.01000	

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	287.62	.00628	.26484	.00054	2.3082	-.00094	.00430	9.0637	-.00110
Stddev	.35	.00021	.00593	.00021	.0260	.00084	.00165	.0321	.00089
%RSD	.12107	3.3477	2.2383	38.645	1.1258	89.296	38.302	.35443	81.190

#1	287.87	.00643	.26065	.00039	2.2898	-.00153	.00546	9.0864	-.00173
#2	287.38	.00613	.26904	.00069	2.3266	-.00035	.00313	9.0410	-.00047

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.2141	.00009	.00055	F -.02480	W -.09997	-.00021	-.00043	.00277
Stddev	.0004	.00080	.00022	.00063	.01790	.00040	.00048	.00249
%RSD	.03399	922.01	40.603	2.5231	17.906	188.01	111.26	89.751

#1	1.2144	-.00048	.00070	-.02525	-.11263	.00007	-.00009	.00101
#2	1.2138	.00065	.00039	-.02436	-.08731	-.00050	-.00078	.00453

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit				20.000	45.000			
Low Limit				-.02000	-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5657.8	79445.	5048.6
Stddev	36.5	12.	18.0
%RSD	.64489	.01486	.35573

#1	5683.6	79437.	5061.3
#2	5632.0	79454.	5035.9

Sample Name: 280-70490-A-1-B SD@5 Acquired: 6/15/2015 14:27:57 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 281323 6010C

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00011	.00069	.00379	.01991	.46546	.00009	.00133	13.106	.00017
Stddev	.00084	.00015	.00086	.00004	.00246	.00001	.00459	.066	.00000
%RSD	784.18	21.009	22.622	.22092	.52882	10.202	345.97	.50064	2.6682

#1	.00070	.00059	.00318	.01994	.46720	.00008	.00457	13.152	.00017
#2	-.00049	.00079	.00440	.01988	.46372	.00009	-.00192	13.059	.00017

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00287	.00025	.00020	4.2183	-.01477	.02994	7.3742	3.8226	.00193
Stddev	.00002	.00012	.00038	.0186	.00249	.00128	.0185	.0092	.00029
%RSD	.57318	47.397	187.20	.44171	16.842	4.2651	.25068	.24067	14.782

#1	.00288	.00033	.00048	4.2315	-.01653	.02904	7.3873	3.8291	.00173
#2	.00285	.00017	-.00007	4.2051	-.01302	.03084	7.3611	3.8161	.00213

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	58.474	.00142	.05142	-.00132	.43359	-.00221	-.00021	1.8075	-.00032
Stddev	.026	.00010	.00478	.00025	.00892	.00055	.00058	.0118	.00044
%RSD	.04438	6.7600	9.3052	18.555	2.0583	24.757	275.08	.65226	139.40

#1	58.455	.00135	.04804	-.00149	.43990	-.00182	.00020	1.7992	-.00000
#2	58.492	.00149	.05481	-.00115	.42728	-.00259	-.00062	1.8159	-.00063

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.24306	.00194	.00042	-.00625	-.03269	-.00002	-.00237	-.00133
Stddev	.00068	.00046	.00023	.00021	.02931	.00051	.00020	.00057
%RSD	.28087	23.676	54.269	3.4224	89.670	2589.5	8.4665	42.830

#1	.24355	.00162	.00026	-.00640	-.05341	.00034	-.00251	-.00093
#2	.24258	.00227	.00059	-.00610	-.01196	-.00038	-.00222	-.00174

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5899.4	83281.	5063.9
Stddev	.9	41.	7.1
%RSD	.01488	.04981	.14109

#1	5900.0	83252.	5058.8
#2	5898.8	83311.	5068.9

Sample Name: 280-70490-A-1-C MS Acquired: 6/15/2015 14:30:36 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 281323 6010C

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05467	1.9305	1.0326	1.1056	4.5555	.05162	2.0124	117.87	.10298
Stddev	.00047	.0062	.0068	.0019	.0121	.00010	.0077	.43	.00019
%RSD	.86011	.32232	.65962	.16794	.26538	.19761	.38152	.36494	.18859
#1	.05501	1.9261	1.0278	1.1043	4.5641	.05169	2.0069	118.18	.10285
#2	.05434	1.9349	1.0375	1.1069	4.5470	.05154	2.0178	117.57	.10312

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51341	.20250	.26361	22.179	51.689	1.2136	86.320	W 18.830	1.0696
Stddev	.00080	.00085	.00138	.035	.085	.0019	.021	.002	.0019
%RSD	.15542	.41832	.52451	.15709	.16473	.15505	.02395	.00945	.17655
#1	.51284	.20190	.26263	22.204	51.749	1.2149	86.306	18.831	1.0682
#2	.51397	.20310	.26459	22.154	51.629	1.2123	86.335	18.828	1.0709

Check ? Chk Pass Chk Warn Chk Pass
 High Limit
 Low Limit 10.000
 -01000

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	344.90	.50055	10.991	.48622	4.4169	.50430	2.0397	19.512	1.9639
Stddev	1.02	.00180	.044	.00014	.0103	.00128	.0096	.018	.0001
%RSD	.29634	.35985	.39697	.02892	.23406	.25316	.47059	.09182	.00322
#1	345.62	.49928	10.960	.48632	4.4096	.50340	2.0329	19.500	1.9639
#2	344.17	.50183	11.022	.48612	4.4242	.50520	2.0465	19.525	1.9640

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.2853	.99352	1.0473	1.8292	1.9422	.50661	.50839	.56041
Stddev	.0050	.00138	.0004	.0065	.0293	.00057	.00273	.00123
%RSD	.21747	.13936	.03811	.35336	1.5064	.11187	.53775	.22024
#1	2.2888	.99450	1.0470	1.8247	1.9215	.50621	.50646	.55954
#2	2.2818	.99254	1.0476	1.8338	1.9629	.50701	.51032	.56129

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5587.7	78337.	5065.2
Stddev	20.8	139.	42.5
%RSD	.37166	.17708	.83869
#1	5602.4	78435.	5035.2
#2	5573.0	78239.	5095.3

Sample Name: 280-70490-A-1-D MSD Acquired: 6/15/2015 14:33:06 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281323 6010C

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05437	1.9107	1.0228	1.1010	4.4669	.05113	2.0034	115.33	.10208
Stddev	.00013	.0008	.0006	.0023	.0065	.00008	.0020	.15	.00051
%RSD	.23315	.04316	.05868	.20759	.14494	.16528	.09854	.13056	.49676

#1	.05428	1.9101	1.0224	1.0994	4.4624	.05119	2.0020	115.23	.10172
#2	.05446	1.9113	1.0233	1.1027	4.4715	.05107	2.0048	115.44	.10244

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50891	.20084	.26230	21.586	51.306	1.2011	84.654	W 18.350	1.0657
Stddev	.00030	.00042	.00078	.036	.140	.0016	.032	.049	.0009
%RSD	.05939	.21130	.29593	.16592	.27244	.12953	.03747	.26933	.08393

#1	.50870	.20054	.26175	21.561	51.207	1.2000	84.631	18.385	1.0663
#2	.50912	.20114	.26285	21.611	51.405	1.2022	84.676	18.315	1.0651

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								10.000	
Low Limit								-.01000	

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	336.02	.49670	10.894	.48367	4.3498	.50149	2.0321	19.198	1.9587
Stddev	.08	.00011	.007	.00052	.0021	.00060	.0083	.083	.0023
%RSD	.02481	.02312	.06499	.10779	.04898	.12035	.40941	.43256	.11908

#1	335.96	.49662	10.899	.48330	4.3514	.50192	2.0263	19.140	1.9570
#2	336.08	.49678	10.889	.48404	4.3483	.50107	2.0380	19.257	1.9603

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.2424	.98441	1.0387	1.8194	1.9126	.50216	.50120	.54786
Stddev	.0041	.00239	.0013	.0049	.0115	.00000	.00020	.00837
%RSD	.18242	.24278	.12635	.26829	.59898	.00084	.03966	1.5281

#1	2.2395	.98272	1.0378	1.8160	1.9207	.50216	.50134	.54194
#2	2.2453	.98610	1.0396	1.8229	1.9045	.50216	.50106	.55378

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5613.4	78615.	5086.1
Stddev	9.1	237.	15.9
%RSD	.16167	.30192	.31193

#1	5619.8	78783.	5097.3
#2	5607.0	78448.	5074.9

Sample Name: 280-70490-A-1-B PDS Acquired: 6/15/2015 14:35:35 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281323 6010C

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03074	.96374	.21844	.19909	2.3539	.05041	-.00616	83.741	.05098
Stddev	.00005	.01119	.00225	.00085	.0052	.00010	.00154	.063	.00053
%RSD	.17754	1.1610	1.0314	.42709	.22122	.19922	25.004	.07517	1.0434
#1	.03078	.97165	.22004	.19969	2.3502	.05034	-.00724	83.697	.05136
#2	.03070	.95583	.21685	.19848	2.3575	.05048	-.00507	83.786	.05061

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06398	.04975	.05505	21.202	20.669	.23792	55.070	W 17.668	.06063
Stddev	.00001	.00051	.00054	.028	.049	.00088	.114	.145	.00040
%RSD	.02217	1.0307	.98318	.13406	.23479	.36853	.20616	.82114	.65514
#1	.06397	.05011	.05543	21.182	20.704	.23854	54.989	17.771	.06091
#2	.06399	.04938	.05467	21.222	20.635	.23730	55.150	17.566	.06035

Check ? High Limit Low Limit
 Chk Pass Chk Warn 10.000 -0.01000 Chk Pass

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	299.63	.05452	2.5002	.09783	2.2313	.09995	.20148	13.952	.09714
Stddev	.38	.00004	.0208	.00066	.0111	.00056	.00124	.007	.00011
%RSD	.12798	.07300	.83299	.67377	.49588	.56057	.61452	.05202	.11664
#1	299.36	.05449	2.5149	.09830	2.2392	.09955	.20060	13.957	.09706
#2	299.90	.05455	2.4855	.09736	2.2235	.10034	.20235	13.947	.09722

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.2218	.19462	.05233	.16010	.41090	.04986	.20880	.06024
Stddev	.0018	.00230	.00036	.00077	.04867	.00002	.00018	.00084
%RSD	.14801	1.1833	.68655	.47907	11.845	.03813	.08751	1.3922
#1	1.2205	.19299	.05258	.15956	.44532	.04984	.20893	.06084
#2	1.2231	.19624	.05207	.16064	.37649	.04987	.20868	.05965

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5725.7	79775.	5105.8
Stddev	25.8	16.	4.6
%RSD	.45119	.01949	.09051
#1	5707.4	79764.	5109.1
#2	5744.0	79786.	5102.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00125	.00330	.03451	.12359	.93338	.00019	-.00275	67.058	.00028
Stddev	.00033	.00063	.00183	.00065	.00181	.00003	.00023	.083	.00003
%RSD	26.665	18.983	5.2933	.52494	.19394	15.473	8.5065	.12361	9.5503
#1	.00149	.00374	.03580	.12404	.93466	.00021	-.00292	67.116	.00026
#2	.00102	.00286	.03322	.12313	.93210	.00017	-.00259	66.999	.00030

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00726	.00012	.00354	27.017	.82519	.12532	34.326	9.0504	.00573
Stddev	.00006	.00015	.00023	.029	.01981	.00282	.017	.0417	.00032
%RSD	.80522	122.48	6.4185	.10868	2.4010	2.2488	.04865	.46058	5.6417
#1	.00722	.00002	.00338	27.038	.83920	.12731	34.338	9.0210	.00550
#2	.00731	.00023	.00370	26.996	.81118	.12333	34.314	9.0799	.00596

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	306.46	.00605	.18991	-.00106	8.4429	-.00093	.00095	9.6603	-.00106
Stddev	.39	.00033	.00056	.00004	.0149	.00019	.00107	.0653	.00001
%RSD	.12666	5.3995	.29638	3.7845	.17647	20.636	112.50	.67569	.74851
#1	306.73	.00581	.19031	-.00104	8.4324	-.00107	.00170	9.7064	-.00107
#2	306.18	.00628	.18951	-.00109	8.4534	-.00080	.00019	9.6141	-.00106

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0391	-.00062	.00030	W -.01336	-.04573	-.00060	-.00063	.00120
Stddev	.0012	.00048	.00045	.00128	.00004	.00094	.00009	.00048
%RSD	.11954	77.054	151.40	9.6179	.09510	158.10	13.942	40.394
#1	1.0400	-.00028	-.00002	-.01245	-.04570	-.00127	-.00057	.00086
#2	1.0382	-.00095	.00062	-.01426	-.04576	.00007	-.00070	.00154

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				5.0000				
Low Limit				-.01000				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5719.5	79785.	5122.7
Stddev	.4	67.	8.9
%RSD	.00772	.08358	.17377
#1	5719.8	79832.	5129.0
#2	5719.2	79737.	5116.4

Sample Name: 280-70490-A-3-B @5 Acquired: 6/15/2015 14:40:51 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281323 6010C

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00058	.00134	.00598	.02030	1.1935	.00014	.00402	13.152	.00017
Stddev	.00043	.00071	.00111	.00002	.0051	.00001	.00150	.066	.00022
%RSD	74.497	53.167	18.620	.11895	.42736	7.1517	37.318	.50070	132.56

#1	.00027	.00185	.00677	.02028	1.1971	.00013	.00508	13.198	.00033
#2	.00088	.00084	.00520	.02032	1.1899	.00015	.00296	13.105	.00001

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00564	.00017	.00018	3.8761	.08564	.04620	9.2760	5.0894	.00148
Stddev	.00004	.00017	.00015	.0336	.02799	.00297	.0389	.0165	.00004
%RSD	.68735	100.63	83.865	.86638	32.684	6.4275	.41953	.32524	2.9173

#1	.00561	.00005	.00007	3.8999	.06585	.04410	9.2485	5.1011	.00151
#2	.00567	.00029	.00029	3.8524	.10544	.04829	9.3035	5.0777	.00145

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	69.086	.00078	.03552	-.00160	.72300	-.00364	-.00120	1.7106	-.00028
Stddev	.433	.00009	.00067	.00123	.00934	.00085	.00125	.0242	.00004
%RSD	.62690	11.427	1.8788	76.875	1.2924	23.376	103.74	1.4161	12.766

#1	69.393	.00084	.03505	-.00247	.72961	-.00304	-.00209	1.7277	-.00026
#2	68.780	.00071	.03599	-.00073	.71640	-.00425	-.00032	1.6935	-.00031

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.33292	.00088	.00001	-.00685	W -.05837	-.00086	-.00227	.00312
Stddev	.00099	.00041	.00012	.00102	.01175	.00043	.00009	.00152
%RSD	.29762	46.779	861.69	14.851	20.126	49.239	3.9381	48.582

#1	.33362	.00117	-.00007	-.00757	-.06667	-.00056	-.00221	.00419
#2	.33222	.00059	.00010	-.00613	-.05006	-.00116	-.00234	.00205

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit					45.000			
Low Limit					-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5868.0	82995.	5050.8
Stddev	12.7	477.	30.4
%RSD	.21614	.57469	.60282

#1	5859.1	83332.	5029.3
#2	5877.0	82657.	5072.3

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0092	50.562	-0.0415	.00357	-0.0021	.00011	.99712	.01736	-0.00125	.00079	.00031	.01594	50.819
Stddev	.00067	.246	.00068	.00028	.00043	.00008	.00310	.00254	.00002	.00041	.00025	.00019	.015
%RSD	72.218	.48714	16.310	7.8136	210.35	69.642	.31078	14.663	1.5540	52.055	80.121	1.1843	.02908

#1	-0.0045	50.388	-0.0367	.00377	.00010	.00006	.99493	.01916	-0.00124	.00108	.00013	.01581	50.809
#2	-0.0139	50.736	-0.0462	.00337	-0.00051	.00016	.99931	.01556	-0.00126	.00050	.00048	.01608	50.830

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.05223	.00635	.00527	.00163	-0.00141	254.52	.00160	.00582	.00028	4.8945	.01466	.00302	.03811
Stddev	.00230	.00219	.00519	.00010	.00049	1.65	.00014	.00049	.00158	.0214	.00228	.00385	.00282
%RSD	4.4063	34.593	98.349	6.0905	34.531	.64959	8.8544	8.4801	572.30	.43772	15.523	127.28	7.3936

#1	-0.05386	.00790	.00161	.00156	-0.00175	253.35	.00171	.00547	.00139	4.8793	.01305	.00030	.04010
#2	-0.05060	.00479	.00894	.00170	-0.00106	255.68	.00150	.00617	-0.00084	4.9096	.01627	.00575	.03611

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00085	.00042	4.8231	.00232	.00046	9.7532	.00118	-0.00079	.19649
Stddev	.00041	.00006	.0024	.00017	.00061	.0149	.00041	.00035	.00298
%RSD	47.825	14.888	.05083	7.4239	130.88	.15295	35.083	44.357	1.5144

#1	.00114	.00038	4.8248	.00220	.00003	9.7637	.00089	-0.00054	.19438
#2	.00056	.00046	4.8214	.00245	.00089	9.7426	.00148	-0.00104	.19859

Check ?	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5699.5	79765.	4953.8
Stddev	38.3	54.	1.9
%RSD	.67257	.06772	.03759

#1	5726.6	79727.	4955.1
#2	5672.4	79803.	4952.4

Sample Name: ccv-3330457 Acquired: 6/15/2015 14:46:10 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49415	.51284	.97815	.49154	.52281	.49447	-.04766	5.0495	.49951	.50376	.50008	.50227	2.5091
Stddev	.00089	.00070	.00013	.00074	.00212	.00012	.00090	.0074	.00009	.00012	.00006	.00054	.0044
%RSD	.18054	.13703	.01319	.14962	.40523	.02409	1.8895	.14732	.01868	.02435	.01281	.10658	.17396

#1	.49352	.51234	.97824	.49206	.52131	.49438	-.04829	5.0443	.49945	.50385	.50004	.50264	2.5122
#2	.49478	.51334	.97805	.49102	.52431	.49455	-.04702	5.0548	.49958	.50368	.50013	.50189	2.5060

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.520	1.0460	19.686	.49798	.50414	5.2897	.50582	.98815	1.0128	.00130	.98645	.97135	5.0220
Stddev	.008	.0009	.013	.00039	.00092	.0009	.00050	.00318	.0011	.00413	.00295	.00218	.0302
%RSD	.01646	.08871	.06368	.07816	.18283	.01710	.09858	.32218	.11301	318.47	.29858	.22432	.60150

#1	49.514	1.0453	19.695	.49771	.50480	5.2904	.50617	.98590	1.0120	-.00162	.98854	.96981	5.0006
#2	49.526	1.0466	19.677	.49826	.50349	5.2891	.50546	.99040	1.0136	.00422	.98437	.97290	5.0433

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass								
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0001	.51240	.01919	.50497	1.0177	.01761	.48861	.49778	.50173
Stddev	.0009	.00140	.00068	.00053	.0036	.06754	.00012	.00036	.00123
%RSD	.09355	.27409	3.5636	.10516	.35628	383.61	.02514	.07234	.24421

#1	1.0008	.51140	.01871	.50460	1.0203	.06536	.48852	.49803	.50260
#2	.99944	.51339	.01968	.50535	1.0152	-.03015	.48870	.49752	.50087

Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5790.6	81557.	4966.2
Stddev	4.2	107.	38.0
%RSD	.07290	.13102	.76418

#1	5787.6	81633.	4993.0
#2	5793.6	81482.	4939.3

Sample Name: CCB Acquired: 6/15/2015 14:48:37 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00027	.00065	.00164	W .00161	W -.00060	.00012	.00265	.00919	.00021	-.00015	.00004
Stddev	.00015	.00043	.00410	.00080	.00022	.00011	.00205	.00139	.00045	.00006	.00001
%RSD	58.047	65.983	250.33	49.820	36.105	98.297	77.581	15.121	215.31	36.240	27.576

#1	.00016	.00095	-.00126	.00218	-.00075	.00004	.00120	.01017	.00053	-.00011	.00005
#2	.00037	.00034	.00454	.00104	-.00045	.00020	.00410	.00821	-.00011	-.00019	.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.00156	.00058						
Low Limit				-.00156	-.00058						

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	-.00318	-.05161	.00182	.00085	.00006	.00105	.05232	-.00026	.00417	-.00150
Stddev	.00037	.00211	.08219	.00040	.00228	.00005	.00021	.00361	.00056	.00194	.00117
%RSD	389.44	66.302	159.26	21.800	269.30	92.675	20.384	6.8990	212.13	46.430	78.222

#1	-.00036	-.00468	.00651	.00210	-.00076	.00002	.00089	.05487	.00013	.00554	-.00232
#2	.00017	-.00169	-.10973	.00154	.00246	.00009	.00120	.04976	-.00065	.00280	-.00067

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00808	.00164	-.00063	.02253	-.00030	.00002	.00077	.00008	-.00014	-.03364	-.00059
Stddev	.00683	.00110	.00117	.01781	.00019	.00002	.00052	.00048	.00044	.02826	.00046
%RSD	84.535	67.312	187.44	79.052	62.968	92.233	67.602	594.95	303.51	83.984	76.884

#1	.00325	.00086	.00020	.00994	-.00017	.00001	.00114	-.00026	.00017	-.05362	-.00027
#2	.01291	.00242	-.00145	.03512	-.00044	.00004	.00040	.00042	-.00045	-.01366	-.00092

Check ?	None	Chk Pass									
High Limit											
Low Limit											

Elem	Zn2062	Zr3391									
Units	ppm	ppm									
Avg	-.00319	W .00263									
Stddev	.00004	.00073									
%RSD	1.3051	27.568									

#1	-.00316	.00212									
#2	-.00322	.00315									

Check ?	Chk Pass	Chk Warn									
High Limit		.00238									
Low Limit		-.00238									

Int. Std.	Y_2243	Y_3600	Y_3774								
Units	Cts/S	Cts/S	Cts/S								
Avg	5895.6	84361.	4945.5								
Stddev	8.5	544.	.5								
%RSD	.14424	.64484	.00985								

#1	5889.6	84746.	4945.9								
#2	5901.6	83976.	4945.2								

Sample Name: CCVL3331245 Acquired: 6/15/2015 14:51:19 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01015	.11183	.01225	.10075	.01074	.00100	W .12237	.22255	.00542	.01064	.01087	.01595
Stddev	.00092	.00093	.00082	.00027	.00028	.00003	.00134	.00214	.00014	.00016	.00010	.00043
%RSD	9.0955	.83541	6.7274	.26934	2.5606	2.5317	1.0975	.95965	2.6038	1.4956	.96398	2.7142

#1	.01080	.11249	.01167	.10055	.01094	.00102	.12142	.22406	.00532	.01075	.01080	.01625
#2	.00950	.11117	.01284	.10094	.01055	.00099	.12332	.22104	.00552	.01052	.01094	.01564

Check ?	Chk Pass	Chk Warn	Chk Pass									
Value							.10000					
Range							20.000%					

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10488	3.1264	F .01506	.21922	.01073	.02058	1.1534	.04379	2.9850	.00898	.00715	.00842
Stddev	.00095	.0462	.00085	.00328	.00003	.00005	.0351	.00006	.0052	.00090	.00051	.00363
%RSD	.90159	1.4792	5.6686	1.4941	.24641	.24455	3.0446	.13690	.17386	10.065	7.1218	43.071

#1	.10421	3.1591	.01446	.21690	.01075	.02062	1.1285	.04374	2.9813	.00962	.00751	.01099
#2	.10555	3.0937	.01567	.22153	.01071	.02054	1.1782	.04383	2.9886	.00834	.00679	.00586

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass						
Value			.01000									
Range			30.000%									

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01623	.52071	.10432	.01066	.01578	.01043	.01655	W .07596	.00847	.02107	.01772
Stddev	.00051	.04299	.00013	.00006	.00062	.00072	.00106	.08053	.00042	.00010	.00242
%RSD	3.1203	8.2564	.12018	.56564	3.9548	6.9271	6.4066	106.01	4.9519	.48702	13.663

#1	.01659	.49031	.10441	.01070	.01533	.01094	.01580	.13291	.00818	.02114	.01944
#2	.01588	.55111	.10423	.01061	.01622	.00992	.01730	.01902	.00877	.02100	.01601

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass						
Value								.06000			
Range								20.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5920.0	84759.	5002.1
Stddev	12.6	342.	23.1
%RSD	.21298	.40388	.46221

#1	5928.9	84517.	5018.5
#2	5911.1	85001.	4985.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00023	.00360	-.00064	W .00194	-.00010	.00015	.00184	.01716	.00018
Stddev	.00029	.00016	.00057	.00061	.00025	.00004	.00047	.00387	.00032
%RSD	124.56	4.4469	89.266	31.740	261.46	27.354	25.646	22.552	179.19
#1	.00043	.00349	-.00104	.00237	-.00028	.00018	.00150	.01990	-.00005
#2	.00003	.00372	-.00024	.00150	.00008	.00012	.00217	.01443	.00040
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.00156					
Low Limit				-.00156					

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00038	.00009	-.00016	.00045	.00611	.00112	.00483	.00016	.00033
Stddev	.00001	.00002	.00017	.00287	.01499	.00109	.00218	.00002	.00004
%RSD	1.8249	25.843	104.90	633.67	245.31	97.298	45.118	13.011	13.024
#1	-.00037	.00008	-.00004	.00248	-.00449	.00188	.00636	.00017	.00030
#2	-.00038	.00011	-.00028	-.00158	.01671	.00035	.00329	.00014	.00036
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02734	-.00011	.00362	-.00034	.01399	.00001	-.00109	.02073	-.00061
Stddev	.00005	.00012	.00290	.00132	.00197	.00015	.00010	.01826	.00053
%RSD	.18749	115.02	79.928	392.54	14.074	1835.1	9.5891	88.116	87.195
#1	.02730	-.00002	.00158	-.00127	.01538	-.00009	-.00116	.03364	-.00098
#2	.02737	-.00019	.00567	.00060	.01260	.00011	-.00102	.00781	-.00023
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00017	.00043	-.00018	-.00071	-.00756	W -.00126	-.00226	-.00185
Stddev	.00010	.00146	.00002	.00029	.01487	.00009	.00001	.00183
%RSD	59.328	338.27	8.3615	40.731	196.87	7.0108	.42087	99.240
#1	.00024	-.00060	-.00017	-.00051	.00296	-.00132	-.00225	-.00055
#2	.00010	.00146	-.00020	-.00092	-.01807	-.00119	-.00227	-.00314
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass
High Limit						.00111		
Low Limit						-.00111		

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5946.2	84345.	5023.1
Stddev	32.6	245.	28.9
%RSD	.54775	.28999	.57576
#1	5923.2	84172.	5043.6
#2	5969.2	84517.	5002.7

Sample Name: LCS 280-280950/2-B Acquired: 6/15/2015 14:56:37 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 281291 200.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05066	1.9727	.98940	1.0233	2.0993	.04992	2.0519	50.340	.09992
Stddev	.00006	.0018	.00242	.0047	.0074	.00001	.0102	.183	.00046
%RSD	.11007	.08899	.24483	.45955	.35089	.01971	.49719	.36424	.45862
#1	.05062	1.9715	.98768	1.0266	2.0940	.04992	2.0591	50.211	.10025
#2	.05070	1.9740	.99111	1.0200	2.1045	.04991	2.0447	50.470	.09960

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49735	.20056	.25634	1.0050	50.072	1.0490	48.770	.49816	1.0601
Stddev	.00122	.00045	.00024	.0022	.094	.0031	.005	.00022	.0040
%RSD	.24617	.22562	.09291	.21487	.18810	.29598	.00999	.04333	.38199
#1	.49822	.20088	.25651	1.0034	50.006	1.0468	48.767	.49832	1.0630
#2	.49649	.20024	.25617	1.0065	50.139	1.0512	48.774	.49801	1.0573

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	52.927	.49389	10.273	.49625	2.0248	.50616	1.9990	10.265	2.0178
Stddev	.164	.00215	.050	.00051	.0132	.00267	.0084	.030	.0068
%RSD	.31047	.43534	.48429	.10342	.65215	.52790	.42084	.29234	.33572
#1	53.043	.49541	10.308	.49662	2.0341	.50805	2.0050	10.244	2.0226
#2	52.811	.49237	10.238	.49589	2.0155	.50427	1.9931	10.286	2.0130

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0278	.97289	1.0304	1.9798	2.0500	.49325	.49369	.55162
Stddev	.0044	.00132	.0002	.0076	.0285	.00046	.00161	.00505
%RSD	.42606	.13578	.02317	.38633	1.3890	.09402	.32560	.91547
#1	1.0247	.97382	1.0306	1.9852	2.0299	.49293	.49256	.54805
#2	1.0309	.97195	1.0303	1.9744	2.0702	.49358	.49483	.55519

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5794.1	81623.	5042.1
Stddev	1.4	150.	21.9
%RSD	.02402	.18344	.43371
#1	5795.1	81729.	5057.6
#2	5793.2	81518.	5026.7

Sample Name: 280-70490-A-4-B @5 Acquired: 6/15/2015 14:59:01 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281323 6010C

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00163	.00048	.01302	.03103	.53197	.00016	.00046	20.279	.00016
Stddev	.00011	.00022	.00083	.00063	.00118	.00002	.00133	.059	.00007
%RSD	7.0312	46.496	6.4071	2.0307	.22180	12.736	289.15	.29032	42.025
#1	.00155	.00064	.01243	.03148	.53280	.00017	.00140	20.320	.00021
#2	.00171	.00032	.01361	.03058	.53113	.00014	-.00048	20.237	.00011

Check ? Chk Pass
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00862	.00036	.00112	21.172	.01746	.00781	10.851	8.6324	.00168
Stddev	.00012	.00006	.00006	.056	.01858	.00063	.027	.0149	.00026
%RSD	1.3636	16.191	5.2214	.26469	106.45	8.0869	.24910	.17244	15.650
#1	.00854	.00040	.00108	21.212	.00432	.00737	10.871	8.6218	.00150
#2	.00870	.00031	.00116	21.132	.03060	.00826	10.832	8.6429	.00187

Check ? Chk Pass
 High Limit
 Low Limit

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	62.427	.00371	.04304	-.00024	2.0282	-.00143	.00121	3.1343	-.00014
Stddev	.730	.00047	.00117	.00016	.0109	.00092	.00062	.0055	.00009
%RSD	1.1691	12.727	2.7100	68.295	.53752	64.204	51.498	.17655	63.665
#1	62.943	.00404	.04386	-.00035	2.0359	-.00208	.00077	3.1304	-.00007
#2	61.911	.00338	.04221	-.00012	2.0205	-.00078	.00165	3.1382	-.00020

Check ? Chk Pass
 High Limit
 Low Limit

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.33552	.00051	.00039	W -.01283	-.03338	-.00091	-.00118	.00073
Stddev	.00063	.00086	.00056	.00018	.00218	.00070	.00001	.00376
%RSD	.18908	166.89	142.33	1.4237	6.5359	77.197	.86369	518.70
#1	.33597	.00112	-.00000	-.01270	-.03184	-.00141	-.00117	.00339
#2	.33507	-.00009	.00079	-.01296	-.03492	-.00041	-.00118	-.00194

Check ? Chk Pass Chk Pass Chk Pass Chk Warn Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit 5.0000
 Low Limit -.01000

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5910.6	83350.	5166.7
Stddev	1.8	258.	10.4
%RSD	.03002	.30933	.20195
#1	5911.9	83532.	5159.3
#2	5909.4	83167.	5174.0

Sample Name: 280-70275-D-1-B Acquired: 6/15/2015 15:01:45 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281291 200.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00008	.00279	-0.00011	.16494	.15227	.00005	.00035	74.427	.00012
Stddev	.00018	.00038	.00068	.00042	.00036	.00002	.00258	.336	.00009
%RSD	232.47	13.621	594.09	.25506	.23317	41.441	729.70	.45136	77.068

#1	-0.00020	.00252	-0.00059	.16524	.15252	.00007	.00218	74.190	.00019
#2	.00005	.00306	.00037	.16464	.15202	.00004	-.00147	74.665	.00005

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00004	.00021	.00788	.00422	3.6885	.01506	16.004	.00268	.00229
Stddev	.00011	.00024	.00018	.00226	.0035	.00077	.028	.00001	.00017
%RSD	241.05	109.97	2.2939	53.617	.09496	5.0829	.17440	.52501	7.2656

#1	.00003	.00038	.00776	.00582	3.6910	.01560	16.024	.00267	.00240
#2	-0.00012	.00005	.00801	.00262	3.6860	.01452	15.984	.00269	.00217

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	52.698	.00681	.01216	-0.00097	16.301	-0.00100	-0.00304	5.6311	-0.00078
Stddev	.311	.00026	.00059	.00019	.017	.00086	.00315	.0101	.00079
%RSD	.58993	3.7660	4.8615	19.448	.10420	86.253	103.71	.17859	100.60

#1	52.478	.00699	.01258	-0.00111	16.289	-0.00161	-0.00527	5.6382	-0.00134
#2	52.918	.00663	.01174	-0.00084	16.313	-0.00039	-0.00081	5.6240	-0.00023

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.70164	.00144	.00023	.00022	.01099	-0.00005	.01402	.00025
Stddev	.00298	.00294	.00017	.00011	.02119	.00047	.00000	.00013
%RSD	.42500	203.77	74.332	49.749	192.85	897.31	.02651	50.392

#1	.69953	-0.0064	.00011	.00030	.02597	.00028	.01402	.00034
#2	.70375	.00352	.00035	.00014	-.00400	-0.00039	.01402	.00016

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5825.7	83043.	5055.8
Stddev	12.1	122.	11.8
%RSD	.20849	.14678	.23433

#1	5834.2	82957.	5064.2
#2	5817.1	83129.	5047.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0022	.00039	-0.00157	.03347	.03021	.00012	-0.00009	14.867	.00016
Stddev	.00026	.00020	.00147	.00024	.00006	.00005	.00531	.116	.00013
%RSD	117.18	51.754	93.672	.70572	.18894	43.244	5616.0	.77965	81.846

#1	-0.0041	.00053	-0.00053	.03330	.03017	.00008	.00366	14.949	.00007
#2	-0.00004	.00025	-.00261	.03364	.03025	.00016	-.00385	14.785	.00025

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00007	.00009	.00147	.00142	.67599	.00305	3.2789	.00053	.00060
Stddev	.00046	.00005	.00024	.00047	.02594	.00062	.0540	.00009	.00005
%RSD	697.71	55.586	16.177	33.346	3.8374	20.459	1.6473	16.394	7.6936

#1	-0.0039	.00006	.00164	.00108	.65765	.00261	3.2407	.00047	.00063
#2	.00026	.00013	.00131	.00175	.69433	.00350	3.3170	.00059	.00056

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	589.592 { 57}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 10.339	11.401	.00161	.00405	-.00088	3.1583	-.00281	-.00201	1.1552
Stddev	.067	.002	.00050	.00203	.00060	.0076	.00065	.00184	.0185
%RSD	.64510	.02136	31.074	50.108	67.365	.24073	22.978	91.285	1.6031

#1	10.386	11.400	.00196	.00549	-.00046	3.1529	-.00236	-.00331	1.1421
#2	10.292	11.403	.00126	.00262	-.00130	3.1636	-.00327	-.00071	1.1683

Check ?	Chk Fail	Chk Pass							
High Limit	10.000								
Low Limit	-1.0000								

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00075	.14192	.00050	.00003	-.00013	.00104	-.00088	.00087	.00215
Stddev	.00114	.00142	.00107	.00003	.00166	.03488	.00017	.00011	.00113
%RSD	152.52	1.0011	214.37	100.80	1240.5	3341.7	19.607	12.637	52.473

#1	-0.00156	.14293	-0.00026	.00001	-.00131	-.02362	-.00076	.00080	.00295
#2	.00006	.14092	.00126	.00005	.00104	.02571	-.00100	.00095	.00135

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5955.3	84724.	5044.3
Stddev	7.0	751.	46.5
%RSD	.11683	.88637	.92227

#1	5950.4	85255.	5011.4
#2	5960.3	84193.	5077.2

Sample Name: 280-70275-D-1-C MS Acquired: 6/15/2015 15:06:59 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281291 200.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04938	1.9001	.96869	1.1490	2.2176	.04945	1.9694	124.79	.09789
Stddev	.00028	.0027	.00161	.0017	.0153	.00036	.0080	.85	.00011
%RSD	.56561	.14039	.16666	.14529	.68801	.73403	.40612	.68485	.11377

#1	.04919	1.9020	.96983	1.1501	2.2284	.04970	1.9750	125.40	.09781
#2	.04958	1.8982	.96755	1.1478	2.2068	.04919	1.9637	124.19	.09797

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48086	.19638	.25500	.98343	53.439	1.0424	63.394	.48730	1.0352
Stddev	.00098	.00067	.00081	.00582	.388	.0056	.050	.00031	.0021
%RSD	.20371	.34310	.31647	.59148	.72698	.54061	.07905	.06452	.20098

#1	.48155	.19686	.25443	.98754	53.714	1.0464	63.430	.48753	1.0366
#2	.48017	.19591	.25557	.97931	53.164	1.0384	63.359	.48708	1.0337

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	104.06	.48524	10.201	.47487	18.676	.48642	1.9390	15.753	1.9557
Stddev	.75	.00121	.016	.00019	.050	.00226	.0063	.115	.0077
%RSD	.71880	.24923	.15995	.04032	.26505	.46522	.32599	.72810	.39622

#1	104.59	.48610	10.212	.47473	18.711	.48802	1.9435	15.834	1.9612
#2	103.53	.48439	10.189	.47500	18.641	.48482	1.9345	15.672	1.9502

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.7191	.96070	1.0016	1.8760	1.9702	.48698	.49805	.53706
Stddev	.0129	.00332	.0004	.0029	.0230	.00245	.00038	.00522
%RSD	.74877	.34547	.04181	.15213	1.1672	.50403	.07592	.97168

#1	1.7282	.95836	1.0013	1.8780	1.9865	.48872	.49778	.54075
#2	1.7100	.96305	1.0019	1.8740	1.9540	.48524	.49832	.53337

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5681.5	79915.	5026.3
Stddev	7.3	162.	13.5
%RSD	.12916	.20256	.26907

#1	5686.7	79801.	5016.8
#2	5676.3	80030.	5035.9

Sample Name: 280-70275-D-1-D MSD Acquired: 6/15/2015 15:09:23 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281291 200.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05150	1.9853	1.0187	1.2053	2.3268	.05197	2.0555	129.32	.10262
Stddev	.00022	.0017	.0004	.0019	.0124	.00025	.0010	.73	.00016
%RSD	.43529	.08590	.03995	.15337	.53330	.47921	.04813	.56474	.15272

#1	.05135	1.9865	1.0184	1.2040	2.3355	.05215	2.0548	129.83	.10273
#2	.05166	1.9841	1.0190	1.2067	2.3180	.05179	2.0562	128.80	.10251

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50345	.20574	.26711	1.0314	55.732	1.0914	65.929	.50986	1.0949
Stddev	.00019	.00001	.00017	.0034	.331	.0066	.055	.00104	.0008
%RSD	.03836	.00488	.06536	.32479	.59438	.60407	.08293	.20313	.07622

#1	.50359	.20575	.26724	1.0338	55.967	1.0961	65.890	.50913	1.0955
#2	.50331	.20573	.26699	1.0290	55.498	1.0868	65.967	.51059	1.0943

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	108.27	.50816	10.678	.49785	19.323	.51181	2.0352	16.419	2.0527
Stddev	.56	.00046	.003	.00289	.037	.00386	.0116	.096	.0006
%RSD	.51535	.09082	.03092	.57954	.19387	.75448	.56841	.58528	.02933

#1	108.66	.50848	10.680	.49989	19.349	.50908	2.0434	16.487	2.0532
#2	107.88	.50783	10.676	.49581	19.296	.51454	2.0270	16.351	2.0523

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.7850	1.0079	1.0573	1.9589	2.0297	.50899	.52025	.56447
Stddev	.0101	.0000	.0033	.0036	.0261	.00110	.00103	.00736
%RSD	.56692	.00405	.30978	.18443	1.2834	.21610	.19773	1.3037

#1	1.7922	1.0080	1.0550	1.9563	2.0481	.50976	.51953	.56967
#2	1.7779	1.0079	1.0596	1.9614	2.0113	.50821	.52098	.55926

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5673.8	80201.	5042.8
Stddev	4.0	49.	4.8
%RSD	.07104	.06148	.09444

#1	5676.6	80236.	5039.4
#2	5670.9	80166.	5046.1

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0074	50.625	-0.00330	.00637	.00051	.00004	.99823	.02050	-0.00130	.00090	.00033	.01626	50.749
Stddev	.00068	.138	.00251	.00001	.00019	.00005	.00170	.00266	.00013	.00019	.00012	.00037	.022
%RSD	92.298	.27277	76.247	.21181	38.165	118.08	.17060	12.989	10.234	21.063	35.723	2.2688	.04252

#1	-0.00026	50.527	-0.00507	.00636	.00064	.00001	.99703	.02239	-0.00139	.00076	.00025	.01653	50.734
#2	-0.00122	50.723	-0.00152	.00638	.00037	.00008	.99944	.01862	-0.00120	.00103	.00041	.01600	50.765

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.07567	.00154	.00405	.00162	.00006	255.59	.00163	.00651	-0.00023	4.9274	.01196	.00817	.01218
Stddev	.09009	.00048	.00056	.00006	.00044	.21	.00049	.00208	.00114	.0115	.00125	.00308	.00470
%RSD	119.05	31.380	13.799	3.9714	796.11	.08381	30.260	31.911	499.51	.23286	10.424	37.675	38.585

#1	.13937	.00188	.00366	.00167	-0.00026	255.44	.00198	.00504	-0.00104	4.9193	.01108	.01034	.00885
#2	.01197	.00120	.00445	.00158	.00037	255.74	.00128	.00798	.00058	4.9355	.01284	.00599	.01550

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00055	.00063	4.8185	.00223	.00045	9.7306	.00140	-0.00127	.20189
Stddev	.00037	.00002	.0474	.00055	.00151	.0774	.00058	.00008	.00099
%RSD	67.443	3.5924	.98319	24.396	333.41	.79502	41.667	6.1309	.49179

#1	-0.00081	.00062	4.8520	.00262	.00152	9.7853	.00181	-0.00133	.20119
#2	-0.00029	.00065	4.7850	.00185	-0.00061	9.6759	.00099	-0.00122	.20259

Check ?	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5794.1	80966.	5016.7
Stddev	6.6	681.	2.1
%RSD	.11465	.84084	.04109

#1	5798.8	80484.	5018.1
#2	5789.4	81447.	5015.2

Sample Name: ccv-3330457 Acquired: 6/15/2015 15:14:22 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49414	.50930	.97877	.49284	.52379	.49432	-.04979	5.0268	.49842	.50141	.49770	.50220	2.4944
Stddev	.00140	.00194	.00003	.00201	.00060	.00072	.00025	.0106	.00145	.00121	.00144	.00197	.0045
%RSD	.28355	.38161	.00312	.40704	.11494	.14498	.50601	.21095	.29001	.24151	.28907	.39220	.18042

#1	.49315	.50792	.97879	.49142	.52336	.49381	-.04961	5.0193	.49740	.50055	.49669	.50081	2.4912
#2	.49513	.51067	.97875	.49426	.52421	.49483	-.04997	5.0343	.49944	.50227	.49872	.50359	2.4976

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.500	1.0496	19.709	.49910	.50137	5.2587	.50133	.98549	1.0104	-.00016	.98995	.97465	5.0283
Stddev	.085	.0032	.132	.00238	.00221	.0063	.00083	.00744	.0021	.00527	.00035	.00088	.0074
%RSD	.17226	.30280	.66740	.47745	.44151	.12065	.16546	.75468	.20925	3286.4	.03530	.08994	.14801

#1	49.439	1.0474	19.616	.49742	.49981	5.2632	.50074	.98023	1.0089	.00357	.98971	.97527	5.0230
#2	49.560	1.0519	19.802	.50079	.50294	5.2543	.50191	.99075	1.0119	-.00389	.99020	.97403	5.0336

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass								
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.99738	.51145	.01919	.50484	1.0155	.02716	.48937	.49645	.49674
Stddev	.00102	.00015	.00104	.00249	.0022	.00499	.00288	.00265	.00232
%RSD	.10257	.02893	5.4285	.49358	.21947	18.377	.58933	.53323	.46676

#1	.99665	.51134	.01993	.50308	1.0139	.02363	.48733	.49458	.49510
#2	.99810	.51155	.01845	.50661	1.0171	.03069	.49141	.49832	.49838

Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5919.6	82764.	5046.5
Stddev	4.8	331.	10.2
%RSD	.08028	.39943	.20143

#1	5922.9	82998.	5053.7
#2	5916.2	82530.	5039.3

Sample Name: CCB Acquired: 6/15/2015 15:16:48 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0051	-0.0004	.00281	W .00249	-0.0004	.00014	.00167	.00525	-0.00008	-0.00033	.00016	-0.00005
Stddev	.00006	.00017	.00039	.00056	.00007	.00001	.00229	.00189	.00004	.00004	.00011	.00019
%RSD	12.165	447.60	13.867	22.415	179.96	3.6556	136.90	36.002	48.079	10.947	67.267	354.51

#1	-.00047	.00008	.00253	.00289	-.00008	.00014	.00005	.00392	-.00011	-.00030	.00023	-.00019
#2	-.00056	-.00016	.00308	.00210	.00001	.00014	.00329	.00659	-.00006	-.00035	.00008	.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.00156								
Low Limit				-.00156								

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00401	-1.2857	-0.00043	.00244	-0.00004	.00115	.03537	.00009	.00360	-0.00082	-0.00068	.00126
Stddev	.00045	.10222	.00036	.00078	.00003	.00030	.00067	.00001	.00139	.00101	.00045	.00080
%RSD	11.222	79.505	83.263	32.000	94.440	26.090	1.8906	8.0686	38.725	124.15	66.656	63.220

#1	-.00370	-.20084	-.00018	.00299	-.00006	.00094	.03584	.00009	.00458	-.00154	-.00036	.00070
#2	-.00433	-.05629	-.00069	.00189	-.00001	.00136	.03490	.00010	.00261	-.00010	-.00100	.00182

Check ?	Chk Pass	None	Chk Pass									
High Limit												
Low Limit												

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00262	.00285	-0.00099	-0.00003	.00054	.00019	-0.00022	-0.01680	-0.00069	-0.00307	.00198
Stddev	.00242	.00234	.00040	.00016	.00055	.00006	.00109	.00978	.00048	.00013	.00235
%RSD	92.287	82.177	40.104	464.30	101.34	32.490	498.54	58.210	69.842	4.1958	118.91

#1	.00433	.00450	-.00127	.00008	.00092	.00024	.00055	-.02371	-.00104	-.00316	.00031
#2	.00091	.00119	-.00071	-.00014	.00015	.00015	-.00099	-.00988	-.00035	-.00298	.00364

Check ?	Chk Pass										
High Limit											
Low Limit											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6043.5	85769.	5086.6
Stddev	11.3	145.	23.7
%RSD	.18747	.16903	.46549

#1	6051.5	85666.	5103.4
#2	6035.5	85871.	5069.9

Sample Name: CCVL3331245 Acquired: 6/15/2015 15:19:29 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01043	.11123	.01331	.10211	.01107	.00102	W .12679	.22550	.00542	.01073	.01063	.01627
Stddev	.00027	.00103	.00054	.00047	.00015	.00011	.00231	.00300	.00002	.00006	.00013	.00003
%RSD	2.5690	.93013	4.0356	.46497	1.3530	10.947	1.8235	1.3297	.40543	.56482	1.2686	.21259

#1	.01061	.11196	.01369	.10245	.01118	.00094	.12515	.22338	.00540	.01078	.01054	.01629
#2	.01024	.11050	.01293	.10178	.01096	.00110	.12842	.22762	.00543	.01069	.01073	.01625

Check ?	Chk Pass	Chk Warn	Chk Pass									
Value							.10000					
Range							20.000%					

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10615	3.0857	W .01205	.22022	.01078	.02053	1.1551	.04319	2.9911	.00854	-.00202	.01024
Stddev	.00253	.0076	.00306	.00113	.00009	.00005	.0164	.00001	.0009	.00001	.00240	.00079
%RSD	2.3808	.24521	25.423	.51368	.82624	.26613	1.4159	.03145	.03051	.14540	118.72	7.7224

#1	.10436	3.0911	.01422	.22102	.01084	.02057	1.1435	.04318	2.9918	.00855	-.00372	.00968
#2	.10794	3.0804	.00989	.21942	.01071	.02049	1.1667	.04320	2.9905	.00853	-.00032	.01079

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	None	Chk Pass						
Value			.01000									
Range			20.000%									

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01312	.51399	.10415	.01087	.01481	.01034	.01593	F .09798	.00962	.02086	.01719
Stddev	.00235	.01755	.00036	.00001	.00188	.00041	.00062	.01240	.00006	.00007	.00200
%RSD	17.934	3.4150	.34328	.08618	12.680	3.9683	3.8716	12.655	.64830	.33069	11.643

#1	.01479	.50158	.10441	.01087	.01348	.01005	.01549	.10675	.00958	.02091	.01577
#2	.01146	.52640	.10390	.01086	.01614	.01063	.01637	.08921	.00967	.02081	.01860

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass						
Value								.06000			
Range								30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6099.6	86172.	5075.0
Stddev	5.0	28.	3.0
%RSD	.08254	.03259	.05913

#1	6096.1	86192.	5077.1
#2	6103.2	86152.	5072.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0059	.00604	.00175	.00101	.00103	.00023	W .00560	W .19366	-0.0016
Stddev	.00019	.00054	.00121	.00027	.00025	.00002	.00098	.00064	.00006
%RSD	31.607	8.9446	69.189	26.253	24.632	6.8003	17.476	.32989	36.838

#1	-0.0072	.00642	.00089	.00120	.00085	.00024	.00630	.19411	-0.0020
#2	-0.0046	.00566	.00260	.00082	.00121	.00022	.00491	.19321	-0.0012

Check ?	Chk Pass	Chk Warn	Chk Warn	Chk Pass					
High Limit							.00500	.10000	
Low Limit							-.00500	-.10000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0027	.00045	.00085	.02843	-.07475	.00022	W .07122	.00058	.00018
Stddev	.00007	.00007	.00056	.00144	.00879	.00023	.00006	.00008	.00037
%RSD	25.091	14.729	66.369	5.0737	11.753	102.55	.08271	13.691	205.20

#1	-0.0023	.00041	.00045	.02945	-.06854	.00038	.07117	.00063	-0.0008
#2	-0.0032	.00050	.00125	.02741	-.08096	.00006	.07126	.00052	.00044

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass					
High Limit							.05000		
Low Limit							-.05000		

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10932	.00087	F .01554	-.00121	.00704	-.00109	-.00261	.01680	.00842
Stddev	.00628	.00026	.00129	.00107	.00151	.00077	.00239	.00241	.00015
%RSD	5.7449	30.211	8.3111	88.590	21.519	70.263	91.333	14.353	1.8023

#1	.11376	.00106	.01645	-.00196	.00597	-.00163	-.00430	.01509	.00853
#2	.10488	.00069	.01462	-.00045	.00811	-.00055	-.00093	.01850	.00832

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass					
High Limit			.01000						
Low Limit			-.01000						

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00048	.00151	.00051	.00196	-.01273	-.00077	-.00097	.00048
Stddev	.00015	.00073	.00020	.00087	.00896	.00046	.00013	.00255
%RSD	31.828	48.355	39.427	44.655	70.358	59.777	13.679	536.00

#1	.00037	.00202	.00065	.00134	-.01906	-.00044	-.00088	-.00133
#2	.00059	.00099	.00037	.00257	-.00640	-.00110	-.00106	.00228

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6191.4	87865.	5187.3
Stddev	8.2	59.	15.4
%RSD	.13223	.06704	.29657

#1	6197.2	87824.	5176.5
#2	6185.6	87907.	5198.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04789	1.8821	.93264	.93625	2.0183	.04780	1.9577	48.361	.09539
Stddev	.00023	.0001	.00112	.00121	.0003	.00021	.0081	.036	.00004
%RSD	.48665	.00752	.11993	.12876	.01581	.43585	.41222	.07523	.03759

#1	.04772	1.8820	.93185	.93540	2.0186	.04766	1.9634	48.335	.09537
#2	.04805	1.8822	.93343	.93710	2.0181	.04795	1.9520	48.386	.09542

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47597	.19146	.24527	.98726	47.740	1.0053	46.235	.47307	.99354
Stddev	.00007	.00005	.00131	.00484	.031	.0051	.069	.00092	.00091
%RSD	.01502	.02381	.53525	.48988	.06574	.50905	.14916	.19475	.09132

#1	.47592	.19149	.24620	.98384	47.718	1.0017	46.283	.47372	.99418
#2	.47602	.19143	.24434	.99068	47.762	1.0090	46.186	.47242	.99290

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.667	.47314	9.8467	.47203	1.9069	.47613	1.8840	F .12879	1.8929
Stddev	.623	.00061	.0037	.00138	.0010	.00251	.0029	.00363	.0021
%RSD	1.2298	.12820	.03733	.29250	.04963	.52625	.15352	2.8171	.11292

#1	50.226	.47271	9.8492	.47301	1.9076	.47790	1.8860	.12623	1.8944
#2	51.107	.47357	9.8441	.47105	1.9063	.47435	1.8820	.13136	1.8914

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit								7.0000	
Low Limit								1.0000	

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.98386	.92210	.96537	1.8866	1.9307	.46683	.47103	.51613
Stddev	.00079	.00299	.00158	.0012	.0143	.00008	.00186	.00044
%RSD	.07985	.32439	.16351	.06564	.74024	.01752	.39555	.08490

#1	.98330	.92422	.96649	1.8875	1.9408	.46678	.47234	.51582
#2	.98441	.91999	.96426	1.8857	1.9206	.46689	.46971	.51644

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5857.5	83106.	5124.8
Stddev	14.6	116.	23.4
%RSD	.24881	.13927	.45701

#1	5867.8	83024.	5141.4
#2	5847.2	83187.	5108.2

Sample Name: 550-45964-B-1-A Acquired: 6/15/2015 15:27:10 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281286 6010B soil

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0060	81.995	.05512	.83172	.60413	.00397	F - .14389	492.45	.00106
Stddev	.00046	.160	.00186	.00011	.00162	.00004	.00094	9.61	.00004
%RSD	76.995	.19486	3.3692	.01269	.26762	.97346	.65658	1.9516	4.0201

#1	-0.0027	81.882	.05643	.83165	.60299	.00395	-.14456	485.66	.00103
#2	-0.0093	82.108	.05381	.83180	.60528	.00400	-.14322	499.25	.00109

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							100.00		
Low Limit							-.02000		

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	271.441 {124}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03507	.09859	.23471	78.785	36.722	.41721	89.486	1.3581	.03007
Stddev	.00018	.00012	.00107	.333	.017	.00054	.063	.0010	.00033
%RSD	.52427	.12502	.45681	.42280	.04611	.12841	.07055	.07505	1.0861

#1	.03494	.09867	.23396	78.550	36.734	.41759	89.441	1.3588	.03031
#2	.03520	.09850	.23547	79.021	36.710	.41683	89.531	1.3574	.02984

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	128.34	.07034	3.4556	.07656	F 296.17	.00307	.02708	5.2144	.01402
Stddev	.03	.00017	.0020	.00141	.17	.00163	.00242	.0204	.00080
%RSD	.02682	.24524	.05904	1.8470	.05906	52.908	8.9546	.39157	5.7185

#1	128.32	.07046	3.4542	.07756	296.29	.00192	.02536	5.2289	.01346
#2	128.37	.07022	3.4571	.07556	296.04	.00422	.02879	5.2000	.01459

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-.02000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.2145	.03836	1.5593	.00275	W -.05007	.16137	.26659	.12849
Stddev	.0008	.00103	.0014	.00009	.00762	.00089	.00096	.00018
%RSD	.02549	2.6923	.09280	3.3132	15.228	.55004	.35920	.13772

#1	3.2139	.03909	1.5603	.00281	-.04467	.16200	.26727	.12836
#2	3.2151	.03763	1.5583	.00268	-.05546	.16074	.26591	.12861

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit					45.000			
Low Limit					-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5773.7	81121.	5320.5
Stddev	2.3	47.	65.3
%RSD	.04050	.05840	1.2264

#1	5775.3	81154.	5366.7
#2	5772.0	81087.	5274.4

Sample Name: 550-45964-B-1-A SD@5 Acquired: 6/15/2015 15:29:45 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281286 6010B soil

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00057	17.577	.01285	.18289	.12977	.00089	F -.03130	106.11	.00032
Stddev	.00042	.048	.00349	.00001	.00024	.00007	.00615	.01	.00009
%RSD	74.507	.27068	27.118	.00719	.18700	8.4026	19.632	.01171	29.373

#1	-.00087	17.543	.01532	.18290	.12994	.00094	-.03565	106.12	.00038
#2	-.00027	17.610	.01039	.18288	.12960	.00084	-.02696	106.10	.00025

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							100.00		
Low Limit							-.02000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00745	.02105	.05047	16.532	7.5828	.08888	19.408	.29182	.00655
Stddev	.00024	.00007	.00009	.021	.0320	.00023	.006	.00001	.00002
%RSD	3.2848	.32299	.18206	.12433	.42167	.25691	.03265	.00454	.28758

#1	.00763	.02110	.05054	16.546	7.6055	.08904	19.413	.29183	.00656
#2	.00728	.02100	.05041	16.517	7.5602	.08872	19.404	.29182	.00653

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	27.535	.01526	.71764	.01640	61.289	-.00128	.00298	1.1149	.00213
Stddev	.129	.00021	.00045	.00066	.053	.00041	.00437	.0053	.00014
%RSD	.46913	1.3454	.06206	3.9962	.08666	32.429	146.49	.47900	6.4726

#1	27.444	.01512	.71795	.01687	61.326	-.00157	.00608	1.1112	.00223
#2	27.626	.01541	.71732	.01594	61.251	-.00098	-.00011	1.1187	.00204

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.68480	.00931	.33025	.00139	-.01090	.03292	.05537	.02682
Stddev	.00003	.00192	.00108	.00050	.04420	.00018	.00052	.00058
%RSD	.00397	20.600	.32778	36.103	405.58	.56104	.94733	2.1575

#1	.68478	.00795	.32949	.00174	.02035	.03279	.05499	.02722
#2	.68482	.01067	.33102	.00103	-.04215	.03305	.05574	.02641

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5814.0	82071.	5029.5
Stddev	.3	84.	13.4
%RSD	.00467	.10294	.26582

#1	5814.2	82130.	5020.0
#2	5813.8	82011.	5038.9

Sample Name: 550-45964-B-1-B MS Acquired: 6/15/2015 15:32:18 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281286 6010B soil

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04572	138.01	.97691	2.0614	2.4954	.04836	1.4821	477.15	.08990
Stddev	.00000	.65	.00617	.0008	.0115	.00018	.0019	1.78	.00012
%RSD	.00689	.47198	.63129	.04122	.46030	.36781	.12803	.37314	.13305
#1	.04572	138.47	.98127	2.0608	2.5036	.04823	1.4835	478.41	.08982
#2	.04572	137.55	.97255	2.0620	2.4873	.04848	1.4808	475.89	.08999

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	271.441 {124}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46307	.31459	.52102	104.90	95.678	1.4586	162.22	2.0304	.91514
Stddev	.00008	.00095	.00187	.51	.226	.0069	.63	.0032	.00130
%RSD	.01740	.30292	.35876	.48778	.23599	.47148	.39063	.15776	.14248
#1	.46312	.31527	.51970	105.26	95.837	1.4635	161.77	2.0281	.91606
#2	.46301	.31392	.52234	104.54	95.518	1.4537	162.67	2.0327	.91421

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	203.94	.50204	13.240	.47788	F 239.06	.18038	1.8049	6.1354	1.6436
Stddev	1.19	.00040	.011	.00038	.14	.00088	.0057	.0939	.0021
%RSD	.58592	.07996	.08287	.08043	.05803	.48740	.31618	1.5305	.12730
#1	204.78	.50232	13.248	.47761	238.96	.17976	1.8009	6.2018	1.6451
#2	203.09	.50175	13.232	.47815	239.16	.18100	1.8090	6.0690	1.6421

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-.02000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.8792	.90227	3.8995	1.5545	1.6899	.68938	.76774	.63894
Stddev	.0144	.00289	.0018	.0003	.0077	.00061	.00099	.00529
%RSD	.29487	.32082	.04553	.02010	.45682	.08888	.12917	.82751
#1	4.8893	.90023	3.8982	1.5547	1.6845	.68982	.76704	.64268
#2	4.8690	.90432	3.9007	1.5543	1.6954	.68895	.76845	.63521

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5717.8	79877.	5207.7
Stddev	.8	105.	15.1
%RSD	.01460	.13138	.28938
#1	5717.2	79951.	5197.1
#2	5718.4	79803.	5218.4

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04586	130.87	.95520	2.0057	2.5625	.04810	1.4871	418.10	.08957
Stddev	.00032	.66	.00444	.0034	.0047	.00033	.0066	1.43	.00005
%RSD	.68778	.50364	.46440	.17132	.18296	.69238	.44436	.34086	.05271

#1	.04608	131.33	.95833	2.0082	2.5658	.04834	1.4917	419.11	.08960
#2	.04563	130.40	.95206	2.0033	2.5591	.04787	1.4824	417.09	.08953

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	271.441 {124}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.45704	.30929	.53117	97.314	92.045	1.4067	153.72	1.9802	.91854
Stddev	.00037	.00133	.00001	.368	.607	.0024	.03	.0007	.00186
%RSD	.08009	.42859	.00262	.37851	.65950	.16710	.01656	.03459	.20252

#1	.45730	.31023	.53116	97.575	92.474	1.4084	153.74	1.9797	.91985
#2	.45678	.30835	.53118	97.054	91.616	1.4050	153.70	1.9807	.91722

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	187.77	.49255	12.809	.46759	W 190.09	.18769	1.7567	6.1189	1.6386
Stddev	.60	.00099	.028	.00355	.45	.00176	.0114	.1124	.0061
%RSD	.31782	.20165	.21490	.75986	.23803	.93876	.64811	1.8371	.37037

#1	188.20	.49325	12.828	.47010	190.41	.18645	1.7647	6.1983	1.6429
#2	187.35	.49185	12.789	.46508	189.77	.18894	1.7486	6.0394	1.6343

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					190.00				
Low Limit					-.01000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.2308	.90766	3.7715	1.5488	1.6954	.68522	.75690	.64062
Stddev	.0185	.00060	.0016	.0037	.0138	.00049	.00075	.00086
%RSD	.43624	.06641	.04325	.24101	.81458	.07140	.09952	.13491

#1	4.2438	.90723	3.7727	1.5515	1.7051	.68488	.75636	.64001
#2	4.2177	.90809	3.7704	1.5462	1.6856	.68557	.75743	.64123

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5757.7	79717.	5278.1
Stddev	4.0	168.	21.4
%RSD	.06959	.21117	.40574

#1	5754.9	79598.	5263.0
#2	5760.5	79836.	5293.3

Sample Name: 550-45964-B-2-A Acquired: 6/15/2015 15:37:15 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281286 6010B soil

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0134	116.31	.17978	.74969	.91679	.00641	F - 1.4016	W 562.80	.00125
Stddev	.00060	.44	.00306	.00127	.00253	.00001	.00085	4.79	.00015
%RSD	44.954	.37559	1.6995	.16876	.27622	.09693	.60733	.85125	11.744

#1	-0.0176	116.62	.18194	.75058	.91858	.00642	-.13955	566.19	.00135
#2	-0.0091	116.00	.17762	.74879	.91500	.00641	-.14076	559.41	.00115

Check ?	Chk Pass	Chk Fail	Chk Warn	Chk Pass					
High Limit							100.00	500.00	
Low Limit							-.02000	-.05000	

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	271.441 {124}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03867	.10860	.09260	97.544	41.014	.49078	155.98	3.2816	.01070
Stddev	.00003	.00040	.00109	.477	.128	.00250	.20	.0021	.00045
%RSD	.06705	.37057	1.1723	.48869	.31310	.50883	.12910	.06271	4.1938

#1	.03865	.10831	.09337	97.881	41.105	.49255	156.12	3.2831	.01038
#2	.03869	.10888	.09183	97.207	40.923	.48902	155.83	3.2802	.01102

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	122.62	.09150	4.3582	.06190	89.437	.00447	.00796	4.9354	.01501
Stddev	1.10	.00011	.0005	.00081	.015	.00412	.00122	.0488	.00046
%RSD	.89992	.11728	.01150	1.3034	.01686	92.299	15.308	.98831	3.0679

#1	123.40	.09142	4.3578	.06133	89.426	.00738	.00882	4.9699	.01533
#2	121.84	.09157	4.3585	.06247	89.448	.00155	.00710	4.9009	.01468

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.6062	.05005	1.6024	-.00190	F - 1.10042	.20538	.31912	.14268
Stddev	.0291	.00041	.0002	.00106	.03188	.00005	.00072	.00366
%RSD	.51854	.81535	.01456	55.727	31.742	.02634	.22555	2.5662

#1	5.6268	.04976	1.6026	-.00265	-.12296	.20534	.31861	.14527
#2	5.5857	.05034	1.6023	-.00115	-.07788	.20541	.31963	.14009

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit					50.000			
Low Limit					-.10000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5858.3	80609.	5367.1
Stddev	9.0	248.	18.1
%RSD	.15282	.30824	.33769

#1	5864.7	80785.	5354.2
#2	5852.0	80433.	5379.9

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0116	50.775	-0.00211	.00881	.00074	-0.00002	1.0029	.02692	-0.00162	.00075	.00042	.01664	50.830
Stddev	.00039	.035	.00443	.00127	.00002	.00002	.0004	.00240	.00008	.00019	.00000	.00000	.009
%RSD	33.223	.06992	210.08	14.386	2.9535	91.796	.04230	8.9235	4.9325	25.973	.01689	.00428	.01792

#1	-0.0143	50.800	-0.00524	.00970	.00073	-0.00001	1.0026	.02522	-0.00168	.00061	.00042	.01664	50.823
#2	-0.0089	50.750	.00102	.00791	.00076	-0.00003	1.0032	.02862	-0.00156	.00089	.00042	.01664	50.836

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.22973	.00035	.00850	.00150	-0.00121	256.84	.00178	.00576	-0.00227	4.9592	.01335	-0.00233	.01176
Stddev	.07980	.00131	.00148	.00006	.00007	.40	.00014	.00382	.00098	.0060	.00103	.00202	.00709
%RSD	34.738	379.47	17.423	4.0542	5.8093	.15681	8.0154	66.220	43.349	.12094	7.7442	86.854	60.320

#1	.17330	-0.00058	.00745	.00154	-0.00126	256.56	.00188	.00846	-0.00157	4.9635	.01262	-0.00090	.01677
#2	.28616	.00127	.00955	.00146	-0.00116	257.13	.00168	.00306	-0.00296	4.9550	.01408	-0.00376	.00674

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00072	.00059	4.8456	.00271	.00061	9.8458	.00190	-0.00111	.20255
Stddev	.00051	.00004	.0092	.00021	.00019	.0315	.00019	.00003	.00084
%RSD	69.991	6.4284	.18996	7.8389	30.950	.31993	10.204	2.7206	.41474

#1	.00108	.00062	4.8521	.00256	.00075	9.8235	.00176	-0.00113	.20314
#2	.00037	.00057	4.8391	.00286	.00048	9.8681	.00204	-0.00109	.20196

Check ?	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5727.9	80050.	4975.7
Stddev	9.2	71.	19.8
%RSD	.16103	.08821	.39823

#1	5721.4	80100.	4989.7
#2	5734.4	80001.	4961.7

Sample Name: ccv-3330457 Acquired: 6/15/2015 15:42:48 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49287	.51352	.98145	.49596	.52763	.49454	-.04942	5.0406	.50056	.50432	.50066	.50251	2.4966
Stddev	.00119	.00053	.00009	.00161	.00122	.00030	.00045	.0039	.00053	.00028	.00119	.00112	.0080
%RSD	.24194	.10377	.00935	.32534	.23108	.06010	.91213	.07822	.10502	.05477	.23803	.22293	.32112

#1	.49203	.51314	.98139	.49710	.52849	.49433	-.04974	5.0378	.50018	.50412	.50150	.50172	2.5023
#2	.49371	.51389	.98152	.49482	.52677	.49475	-.04910	5.0434	.50093	.50451	.49982	.50330	2.4909

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.636	1.0521	19.574	.49695	.50395	5.3131	.50342	.98675	1.0145	.01208	.99008	.98057	4.9920
Stddev	.105	.0002	.012	.00005	.00007	.0217	.00005	.00081	.0017	.00590	.00205	.00824	.0348
%RSD	.21152	.02226	.06115	.01050	.01475	.40829	.01091	.08215	.16711	48.887	.20749	.84022	.69764

#1	49.562	1.0523	19.582	.49692	.50389	5.3285	.50338	.98618	1.0133	.00790	.99154	.98640	5.0167
#2	49.710	1.0520	19.565	.49699	.50400	5.2978	.50346	.98733	1.0157	.01625	.98863	.97475	4.9674

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass								
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0007	.51423	.01809	.50415	1.0194	.03323	.48549	.49538	.50421
Stddev	.0006	.00042	.00203	.00022	.0021	.03372	.00037	.00019	.00052
%RSD	.06139	.08102	11.221	.04335	.20213	101.47	.07664	.03873	.10222

#1	1.0002	.51452	.01666	.50400	1.0209	.05707	.48523	.49524	.50384
#2	1.0011	.51394	.01953	.50431	1.0180	.00939	.48576	.49551	.50457

Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5868.2	82572.	4976.0
Stddev	7.4	15.	6.9
%RSD	.12689	.01795	.13860

#1	5863.0	82562.	4980.8
#2	5873.5	82583.	4971.1

Sample Name: CCB Acquired: 6/15/2015 15:45:14 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00009	.00075	.00246	F .00357	-.00004	.00007	-.00057	.00979	.00016	-.00022	.00010	.00001
Stddev	.00022	.00016	.00002	.00001	.00041	.00008	.00120	.00172	.00035	.00021	.00006	.00031
%RSD	251.12	21.668	1.0125	.16310	924.69	121.25	211.40	17.571	222.80	94.634	58.610	2543.0

#1	.00024	.00063	.00248	.00356	-.00033	.00001	.00028	.00857	-.00009	-.00007	.00014	.00023
#2	-.00007	.00086	.00244	.00357	.00024	.00012	-.00142	.01101	.00040	-.00037	.00006	-.00021

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.00312								
Low Limit				-.00312								

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00006	.06546	.00089	-.00061	-.00001	.00130	.06408	.00014	.00002	-.00079	.00866	.00214
Stddev	.00047	.03292	.00109	.00354	.00006	.00026	.00605	.00018	.00097	.00139	.00177	.00022
%RSD	796.87	50.287	122.44	576.11	1077.4	19.632	9.4408	135.42	5281.3	175.91	20.483	10.117

#1	-.00039	.04218	.00166	-.00312	-.00005	.00112	.05980	.00001	.00070	.00019	.00992	.00198
#2	.00028	.08874	.00012	.00189	.00004	.00149	.06835	.00026	-.00066	-.00177	.00741	.00229

Check ?	Chk Pass	None	Chk Pass									
High Limit												
Low Limit												

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00437	.01304	-.00005	.00012	.00045	.00035	-.00067	-.01053	-.00069	-.00289	.00124
Stddev	.00197	.01882	.00015	.00005	.00068	.00003	.00082	.02417	.00004	.00020	.00150
%RSD	45.176	144.31	337.82	39.556	149.94	7.2320	123.54	229.42	5.1030	6.9649	121.24

#1	.00576	.02635	.00006	.00016	-.00003	.00033	-.00008	.00655	-.00067	-.00303	.00018
#2	.00297	-.00027	-.00015	.00009	.00093	.00037	-.00125	-.02762	-.00072	-.00275	.00230

Check ?	Chk Pass										
High Limit											
Low Limit											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5994.5	84999.	4972.9
Stddev	26.0	19.	4.7
%RSD	.43319	.02197	.09536

#1	5976.1	84986.	4969.5
#2	6012.9	85012.	4976.2

Sample Name: CCVL3331245 Acquired: 6/15/2015 15:47:54 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01038	.11432	.01225	.10309	.01073	.00112	W .12346	.23098	.00537	.01053	.01062	.01659
Stddev	.00048	.00044	.00505	.00022	.00020	.00012	.00184	.00607	.00003	.00001	.00009	.00015
%RSD	4.6368	.38539	41.240	.21359	1.9087	11.132	1.4889	2.6267	.52976	.11845	.81754	.93154

#1	.01004	.11401	.01582	.10293	.01088	.00121	.12216	.22669	.00539	.01052	.01069	.01648
#2	.01072	.11464	.00868	.10324	.01059	.00103	.12476	.23527	.00535	.01054	.01056	.01670

Check ?	Chk Pass	Chk Warn	Chk Pass									
Value							.10000					
Range							20.000%					

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10424	3.0907	.01141	.22048	.01071	.02053	1.1552	.04288	2.9938	.00909	.00803	.00920
Stddev	.00201	.0244	.00225	.00006	.00005	.00023	.0044	.00027	.0043	.00101	.00017	.00003
%RSD	1.9260	.78870	19.747	.02671	.42122	1.1065	.38085	.63404	.14351	11.065	2.0838	.28196

#1	.10566	3.1079	.01300	.22044	.01068	.02037	1.1583	.04268	2.9968	.00838	.00791	.00918
#2	.10282	3.0735	.00982	.22052	.01074	.02069	1.1521	.04307	2.9907	.00980	.00814	.00921

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01492	.50508	.10414	.01070	.01570	.01067	.01588	F .09475	.00923	.02114	.01675
Stddev	.00192	.01864	.00057	.00018	.00379	.00043	.00094	.04207	.00055	.00032	.00417
%RSD	12.879	3.6909	.54371	1.6612	24.159	4.0523	5.8892	44.399	5.9404	1.4924	24.879

#1	.01356	.49190	.10454	.01057	.01839	.01036	.01654	.06501	.00962	.02092	.01380
#2	.01628	.51826	.10374	.01083	.01302	.01098	.01522	.12450	.00884	.02136	.01969

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass						
Value								.06000			
Range								30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6051.7	85694.	5070.4
Stddev	19.0	541.	10.7
%RSD	.31438	.63174	.21195

#1	6038.2	85311.	5062.8
#2	6065.1	86077.	5078.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00025	.00181	.00406	.00410	.00011	.00015	.00043	.03059	.00021
Stddev	.00002	.00036	.00098	.00076	.00002	.00002	.00080	.00051	.00010
%RSD	7.3403	19.919	24.082	18.438	17.763	15.598	186.53	1.6617	49.935

#1	.00026	.00156	.00336	.00463	.00012	.00017	-.00014	.03023	.00028
#2	.00023	.00207	.00475	.00356	.00010	.00014	.00099	.03095	.00013

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00015	.00002	.00063	.00235	.03089	.00082	.00421	.00016	.00020
Stddev	.00028	.00001	.00031	.00128	.01346	.00064	.00092	.00005	.00031
%RSD	192.81	58.967	48.856	54.691	43.585	78.404	21.831	33.623	156.81

#1	.00005	.00002	.00041	.00326	.04041	.00128	.00356	.00012	-.00002
#2	-.00034	.00001	.00084	.00144	.02137	.00037	.00486	.00020	.00042

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02036	.00014	.00131	-.00141	.01722	-.00176	-.00165	.02769	-.00042
Stddev	.01062	.00023	.00385	.00023	.00030	.00037	.00128	.00415	.00058
%RSD	52.139	165.22	293.96	16.308	1.7510	20.780	77.608	14.979	139.39

#1	.02787	-.00002	-.00141	-.00157	.01744	-.00202	-.00075	.03062	-.00001
#2	.01285	.00030	.00403	-.00125	.01701	-.00150	-.00256	.02476	-.00083

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00017	.00037	-.00002	-.00113	.01582	-.00095	-.00179	.00232
Stddev	.00004	.00022	.00001	.00042	.01081	.00021	.00015	.00055
%RSD	25.163	60.039	23.288	37.541	68.343	21.974	8.1759	23.670

#1	.00014	.00022	-.00003	-.00142	.00818	-.00109	-.00169	.00271
#2	.00020	.00053	-.00002	-.00083	.02347	-.00080	-.00189	.00193

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6060.7	86342.	5098.3
Stddev	11.9	257.	6.2
%RSD	.19707	.29800	.12225

#1	6069.1	86160.	5102.7
#2	6052.2	86524.	5093.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05068	1.9688	.97996	1.0122	2.1107	.05008	2.0391	50.202	.10035
Stddev	.00005	.0003	.00272	.0013	.0018	.00011	.0019	.053	.00022
%RSD	.09561	.01343	.27801	.12922	.08654	.21796	.09245	.10541	.22130
#1	.05071	1.9686	.97803	1.0113	2.1094	.05000	2.0377	50.164	.10051
#2	.05064	1.9690	.98188	1.0131	2.1120	.05016	2.0404	50.239	.10019

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49489	.19919	.25339	1.0004	49.755	1.0475	48.707	.49631	1.0449
Stddev	.00008	.00006	.00128	.0029	.260	.0002	.036	.00038	.0014
%RSD	.01546	.02929	.50500	.28706	.52270	.01829	.07386	.07754	.13473
#1	.49494	.19924	.25248	.99840	49.571	1.0476	48.732	.49658	1.0459
#2	.49484	.19915	.25429	1.0025	49.939	1.0473	48.682	.49603	1.0439

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	52.877	.49225	10.228	.49167	1.9998	.49927	1.9894	10.097	1.9896
Stddev	.040	.00047	.023	.00031	.0096	.00420	.0000	.054	.0065
%RSD	.07499	.09507	.22722	.06318	.47823	.84220	.00179	.53027	.32544
#1	52.849	.49258	10.211	.49189	1.9930	.50225	1.9894	10.059	1.9941
#2	52.905	.49192	10.244	.49145	2.0065	.49630	1.9894	10.134	1.9850

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0238	.97008	1.0190	1.9741	1.9783	.49291	.49375	.54369
Stddev	.0020	.00393	.0008	.0043	.0389	.00137	.00011	.00039
%RSD	.19816	.40546	.07675	.21513	1.9675	.27727	.02202	.07109
#1	1.0223	.96730	1.0184	1.9771	2.0058	.49194	.49367	.54397
#2	1.0252	.97286	1.0195	1.9711	1.9507	.49387	.49382	.54342

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5799.5	81712.	5089.1
Stddev	.1	214.	4.3
%RSD	.00179	.26237	.08485
#1	5799.6	81561.	5092.2
#2	5799.5	81864.	5086.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0027	.00359	.00340	.05677	.14973	.00015	-0.00144	102.53	-0.00005
Stddev	.00013	.00027	.00131	.00015	.00032	.00006	.00173	.11	.00016
%RSD	49.638	7.4519	38.641	.27181	.21065	39.626	119.85	.10457	358.35
#1	-0.0017	.00378	.00247	.05666	.14951	.00019	-.00266	102.60	-.00016
#2	-0.00036	.00340	.00433	.05688	.14996	.00011	-.00022	102.45	.00007

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0019	.00087	.00165	.00601	1.0206	.02998	18.607	.00564	.00246
Stddev	.00021	.00002	.00046	.00112	.0191	.00022	.013	.00009	.00010
%RSD	111.73	1.9409	28.200	18.620	1.8716	.71937	.06895	1.6416	4.1365
#1	-0.0034	.00086	.00132	.00680	1.0071	.03014	18.616	.00558	.00239
#2	-0.00004	.00088	.00197	.00522	1.0342	.02983	18.598	.00571	.00254

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	48.344	.00069	.01322	-0.00102	8.3589	-0.0012	.00430	12.328	-0.00065
Stddev	.161	.00003	.00015	.00101	.0177	.00010	.00316	.080	.00066
%RSD	.33225	4.2446	1.1093	99.451	.21238	84.799	73.573	.64766	100.42
#1	48.231	.00071	.01332	-0.00030	8.3714	-0.00005	.00653	12.384	-0.00019
#2	48.458	.00067	.01311	-0.00173	8.3463	-0.00019	.00206	12.271	-0.00112

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.3581	.00056	.00014	.00119	-0.00364	.00789	-0.00140	-0.00009
Stddev	.0014	.00043	.00019	.00124	.00996	.00014	.00055	.00235
%RSD	.10282	75.750	131.58	104.56	273.42	1.7247	39.502	2602.2
#1	1.3591	.00026	.00028	.00031	.00340	.00779	-.00179	-.00175
#2	1.3571	.00086	.00001	.00207	-.01069	.00798	-.00101	.00157

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5854.6	82645.	5137.5
Stddev	14.4	80.	7.6
%RSD	.24529	.09695	.14701
#1	5864.8	82702.	5142.8
#2	5844.5	82588.	5132.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0024	.00008	-0.00036	.01296	.03028	.00008	.00157	20.766	.00016
Stddev	.00001	.00018	.00207	.00018	.00028	.00002	.00019	.073	.00018
%RSD	2.2636	209.22	576.67	1.3541	.92160	23.451	12.027	.35270	113.28

#1	-0.0024	-0.0004	.00111	.01284	.03047	.00009	.00144	20.818	.00003
#2	-0.0023	.00021	-.00182	.01309	.03008	.00007	.00171	20.715	.00028

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0013	.00022	.00063	.00358	.15557	.00793	3.8886	.00113	.00053
Stddev	.00014	.00010	.00019	.00703	.01866	.00065	.0126	.00004	.00006
%RSD	109.77	45.726	29.544	196.31	11.993	8.1974	.32446	3.5317	12.365

#1	-0.0023	.00029	.00076	.00855	.16876	.00747	3.8797	.00116	.00057
#2	-0.0003	.00015	.00050	-.00139	.14238	.00839	3.8975	.00110	.00048

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	589.592 { 57}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 9.7137	10.400	.00021	.00261	-.00059	1.6301	-.00287	-.00471	2.4926
Stddev	.0195	.262	.00021	.00122	.00155	.0035	.00144	.00320	.0110
%RSD	.20062	2.5212	102.81	46.654	264.85	.21265	50.108	67.879	.43927

#1	9.7275	10.586	.00036	.00175	-.00168	1.6325	-.00388	-.00698	2.4849
#2	9.7000	10.215	.00006	.00347	.00051	1.6276	-.00185	-.00245	2.5004

Check ?	Chk Warn	Chk Pass							
High Limit	9.0000								
Low Limit	-50000								

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00032	.27797	.00216	.00026	-.00004	-.00811	.00085	-.00237	.00320
Stddev	.00064	.00103	.00135	.00005	.00049	.01641	.00050	.00015	.00016
%RSD	201.23	.37184	62.499	20.191	1184.5	202.33	58.191	6.1408	4.9101

#1	-0.0013	.27870	.00311	.00022	.00030	-.01972	.00050	-.00247	.00331
#2	.00077	.27724	.00120	.00029	-.00039	.00349	.00120	-.00227	.00309

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5947.4	84125.	5062.0
Stddev	11.0	135.	12.7
%RSD	.18440	.15994	.25093

#1	5939.7	84220.	5053.0
#2	5955.2	84029.	5071.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04936	1.8948	.96979	1.0411	2.2297	.04957	1.9651	150.60	.09839
Stddev	.00024	.0084	.00167	.0052	.0017	.00002	.0052	.25	.00069
%RSD	.48195	.44225	.17269	.50367	.07697	.04419	.26425	.16321	.69715

#1	.04919	1.8889	.96861	1.0373	2.2309	.04956	1.9614	150.78	.09791
#2	.04953	1.9007	.97098	1.0448	2.2285	.04959	1.9688	150.43	.09888

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47696	.19553	.25005	.96869	50.362	1.0590	65.641	.49026	1.0271
Stddev	.00298	.00150	.00063	.00730	.042	.0000	.073	.00053	.0065
%RSD	.62529	.76670	.25139	.75358	.08342	.00117	.11093	.10850	.63348

#1	.47486	.19447	.25050	.97385	50.332	1.0590	65.693	.49063	1.0225
#2	.47907	.19659	.24961	.96352	50.392	1.0590	65.590	.48988	1.0317

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	99.252	.47466	10.201	.47497	10.404	.48815	1.9463	22.240	1.9449
Stddev	.382	.00321	.059	.00402	.057	.00037	.0013	.018	.0144
%RSD	.38448	.67619	.57349	.84636	.54336	.07639	.06606	.07878	.73770

#1	98.982	.47239	10.159	.47213	10.364	.48788	1.9473	22.252	1.9348
#2	99.522	.47693	10.242	.47781	10.444	.48841	1.9454	22.227	1.9551

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.3546	.95916	1.0081	1.8674	1.9789	.49450	.48200	.53304
Stddev	.0003	.00208	.0015	.0084	.0058	.00017	.00304	.00078
%RSD	.01173	.21678	.14887	.44860	.29536	.03389	.62971	.14709

#1	2.3548	.96063	1.0092	1.8615	1.9830	.49462	.48415	.53249
#2	2.3545	.95769	1.0071	1.8733	1.9748	.49438	.47986	.53359

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5683.2	80233.	5030.1
Stddev	27.4	129.	12.8
%RSD	.48270	.16105	.25352

#1	5702.6	80141.	5021.1
#2	5663.8	80324.	5039.2

Sample Name: 280-70279-C-6-C MSD Acquired: 6/15/2015 16:03:13 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281106 6010C Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04972	1.9155	.97867	1.0452	2.2394	.04981	1.9860	148.47	.09935
Stddev	.00014	.0008	.00290	.0015	.0042	.00016	.0048	.18	.00018
%RSD	.28881	.04009	.29639	.14521	.18670	.31787	.24043	.12345	.18594

#1	.04982	1.9161	.97661	1.0441	2.2423	.04992	1.9826	148.60	.09949
#2	.04961	1.9150	.98072	1.0463	2.2364	.04970	1.9894	148.34	.09922

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48275	.19786	.25191	.97983	50.754	1.0730	65.400	.49412	1.0353
Stddev	.00021	.00000	.00045	.00322	.069	.0021	.010	.00002	.0002
%RSD	.04440	.00153	.17975	.32823	.13689	.19726	.01597	.00406	.01995

#1	.48291	.19786	.25159	.98211	50.803	1.0745	65.407	.49414	1.0355
#2	.48260	.19785	.25223	.97756	50.705	1.0715	65.393	.49411	1.0352

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	98.602	.48049	10.332	.47968	10.210	.49083	1.9741	21.941	1.9554
Stddev	.358	.00026	.009	.00135	.013	.00009	.0094	.101	.0011
%RSD	.36333	.05476	.09076	.28106	.12337	.01858	.47694	.46246	.05795

#1	98.855	.48031	10.339	.47873	10.201	.49089	1.9674	22.013	1.9546
#2	98.349	.48068	10.326	.48064	10.219	.49077	1.9808	21.869	1.9562

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.3365	.96256	1.0108	1.8895	1.9782	.49833	.48517	.53899
Stddev	.0039	.00217	.0008	.0045	.0219	.00012	.00198	.00029
%RSD	.16517	.22523	.07874	.23633	1.1050	.02491	.40857	.05322

#1	2.3392	.96103	1.0102	1.8863	1.9628	.49842	.48377	.53879
#2	2.3338	.96409	1.0114	1.8926	1.9937	.49825	.48657	.53919

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5655.7	79695.	4999.8
Stddev	4.1	84.	15.5
%RSD	.07250	.10563	.31001

#1	5652.8	79636.	4988.9
#2	5658.6	79755.	5010.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02769	.98456	.19971	.15417	.25393	.04982	-.00971	120.29	.04987
Stddev	.00007	.00357	.00327	.00050	.00037	.00013	.00224	.00	.00001
%RSD	.26377	.36265	1.6380	.32717	.14525	.25378	23.113	.00018	.02230

#1	.02774	.98709	.19739	.15381	.25367	.04973	-.01129	120.29	.04987
#2	.02764	.98204	.20202	.15453	.25419	.04991	-.00812	120.29	.04988

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04802	.05019	.05206	.99001	20.842	.13351	36.959	.05448	.05313
Stddev	.00046	.00016	.00018	.00494	.121	.00140	.054	.00022	.00002
%RSD	.94923	.32254	.35036	.49859	.58190	1.0501	.14698	.39756	.02877

#1	.04834	.05008	.05219	.98652	20.928	.13252	36.997	.05463	.05312
#2	.04770	.05030	.05193	.99350	20.756	.13450	36.920	.05433	.05314

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	68.447	.04879	2.0540	.09384	8.2054	.10046	.19442	17.195	.09911
Stddev	.165	.00014	.0040	.00319	.0189	.00121	.00165	.032	.00079
%RSD	.24173	.29325	.19635	3.3969	.23085	1.2062	.84757	.18714	.80143

#1	68.330	.04889	2.0569	.09159	8.2188	.10132	.19325	17.217	.09855
#2	68.564	.04869	2.0512	.09609	8.1920	.09961	.19558	17.172	.09967

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.3900	.19214	.05160	.19357	.49757	.05586	.20372	.05935
Stddev	.0007	.00255	.00015	.00091	.02902	.00008	.00039	.00239
%RSD	.05210	1.3278	.29168	.47049	5.8318	.14313	.19006	4.0250

#1	1.3895	.19033	.05149	.19293	.51808	.05591	.20345	.06104
#2	1.3905	.19394	.05171	.19422	.47705	.05580	.20399	.05766

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5745.0	80865.	5022.2
Stddev	8.4	89.	1.8
%RSD	.14600	.11066	.03674

#1	5739.0	80928.	5023.5
#2	5750.9	80801.	5020.9

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0130	50.768	.00009	.00534	.00036	-0.00002	1.0045	.01362	-0.0145	.00095	.00037	.01700	51.120
Stddev	.00042	.167	.00323	.00111	.00015	.00015	.0004	.00027	.00010	.00061	.00001	.00119	.173
%RSD	32.208	.32925	3802.2	20.721	42.051	756.03	.03812	1.9837	6.5694	63.898	2.5463	7.0118	.33892

#1	-0.0160	50.650	-0.00220	.00613	.00025	.00009	1.0043	.01343	-0.0138	.00138	.00036	.01785	50.998
#2	-0.0100	50.887	.00237	.00456	.00046	-0.00013	1.0048	.01381	-0.0151	.00052	.00037	.01616	51.243

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.21113	.00290	-0.00051	.00160	-0.00148	256.84	.00202	.00322	-0.00181	4.9441	.01534	.00145	.01901
Stddev	.03388	.00041	.00552	.00001	.00017	.01	.00029	.00128	.00127	.0004	.00031	.00217	.00219
%RSD	16.046	14.231	1072.8	.83437	11.366	.00506	14.316	39.894	69.834	.00820	2.0301	149.76	11.542

#1	.18717	.00261	.00339	.00161	-0.00136	256.83	.00182	.00413	-0.00092	4.9438	.01556	.00299	.01746
#2	.23508	.00320	-0.00442	.00159	-0.00160	256.85	.00223	.00231	-0.00271	4.9444	.01512	-0.00009	.02057

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00032	.00042	4.8393	.00238	-0.00017	9.8306	.00176	-0.00106	.20421
Stddev	.00007	.00007	.0055	.00047	.00024	.0220	.00043	.00031	.00293
%RSD	23.322	15.915	.11321	19.687	137.36	.22413	24.420	29.179	1.4360

#1	.00037	.00047	4.8354	.00205	-0.00000	9.8462	.00146	-0.00128	.20214
#2	.00026	.00038	4.8431	.00272	-0.00034	9.8150	.00207	-0.00084	.20628

Check ?	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5755.0	80345.	5015.4
Stddev	14.7	92.	5.6
%RSD	.25619	.11476	.11147

#1	5744.5	80410.	5011.4
#2	5765.4	80280.	5019.3

Sample Name: ccv-3330457 Acquired: 6/15/2015 16:10:40 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49274	.51404	.98363	.49566	.53061	.49621	-.04704	5.0361	.49995	.50358	.49971	.50260	2.5025
Stddev	.00128	.00165	.00309	.00148	.00135	.00110	.00080	.0001	.00052	.00022	.00049	.00187	.0002
%RSD	.26014	.32138	.31387	.29829	.25497	.22116	1.7028	.00156	.10482	.04285	.09897	.37143	.00670

#1	.49365	.51521	.98581	.49671	.53157	.49698	-.04648	5.0362	.50032	.50343	.50006	.50392	2.5026
#2	.49184	.51288	.98145	.49462	.52966	.49543	-.04761	5.0361	.49958	.50373	.49936	.50128	2.5024

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.457	1.0600	19.574	.49736	.50291	5.3119	.50428	.98762	1.0147	-.00523	.99039	.99040	4.9913
Stddev	.023	.0014	.026	.00037	.00090	.0086	.00019	.00629	.0033	.00468	.00016	.00144	.0165
%RSD	.04714	.12710	.13267	.07455	.17899	.16117	.03721	.63715	.32756	89.443	.01592	.14521	.33012

#1	49.474	1.0590	19.592	.49762	.50354	5.3180	.50415	.98317	1.0171	-.00855	.99050	.98938	5.0029
#2	49.441	1.0609	19.556	.49710	.50227	5.3059	.50442	.99207	1.0124	-.00192	.99028	.99142	4.9796

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass								
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.99923	.51500	.01941	.50538	1.0185	.01450	.48453	.49594	.50375
Stddev	.00246	.00083	.00010	.00032	.0017	.00167	.00043	.00104	.00003
%RSD	.24664	.16105	.49688	.06262	.17075	11.534	.08945	.21069	.00596

#1	.99748	.51558	.01934	.50560	1.0173	.01568	.48422	.49667	.50373
#2	1.0010	.51441	.01948	.50516	1.0197	.01331	.48484	.49520	.50377

Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5912.9	82777.	4989.2
Stddev	2.3	3.	6.1
%RSD	.03922	.00384	.12191

#1	5911.3	82779.	4993.5
#2	5914.6	82775.	4984.9

Sample Name: CCB Acquired: 6/15/2015 16:13:06 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0028	-0.0028	.00128	W .00275	.00003	-0.00003	.00334	.00455	.00008	-0.00012	.00005
Stddev	.00010	.00001	.00293	.00035	.00016	.00020	.00187	.00021	.00001	.00015	.00000
%RSD	34.230	5.2739	228.70	12.571	456.60	609.42	55.854	4.6281	7.7153	127.85	8.7415

#1	-0.00021	-0.00029	-0.00079	.00299	-0.00008	.00011	.00202	.00470	.00008	-0.00022	.00005
#2	-0.00035	-0.00027	.00335	.00250	.00015	-0.00018	.00466	.00441	.00008	-0.00001	.00006

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.00156							
Low Limit				-.00156							

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00002	-0.00102	-0.03962	-0.00122	.00005	-0.00005	.00103	.03047	.00035	.00076	-0.00164
Stddev	.00014	.00211	.01361	.00023	.00033	.00000	.00019	.01832	.00010	.00189	.00003
%RSD	668.07	207.47	34.364	19.059	654.21	.47632	18.013	60.124	27.219	248.08	1.5934

#1	-0.00012	.00048	-.04924	-.00139	-.00018	-.00005	.00090	.04343	.00042	.00209	-.00166
#2	.00008	-.00251	-.02999	-.00106	.00028	-.00005	.00116	.01752	.00029	-.00057	-.00162

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00037	.00183	.00209	.00445	-0.00006	-0.00003	-0.00096	-0.00003	-0.00105	.01336	W -0.00132
Stddev	.00352	.00047	.00029	.02259	.00096	.00015	.00187	.00024	.00061	.00864	.00024
%RSD	946.06	25.684	13.988	507.45	1482.5	544.14	195.12	711.37	57.840	64.678	18.193

#1	-.00286	.00216	.00188	-.01152	-.00074	-.00013	-.00228	.00014	-.00148	.01946	-.00115
#2	.00212	.00150	.00229	.02043	.00061	.00008	.00036	-.00020	-.00062	.00725	-.00149

Check ?	None	Chk Pass	Chk Warn								
High Limit											.00111
Low Limit											-.00111

Elem	Zn2062	Zr3391
Units	ppm	ppm
Avg	-0.00275	.00189
Stddev	.00058	.00191
%RSD	21.229	101.28

#1	-.00316	.00324
#2	-.00234	.00054

Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5996.0	84925.	5035.4
Stddev	2.3	270.	8.1
%RSD	.03805	.31807	.16102

#1	5997.6	84734.	5029.7
#2	5994.4	85116.	5041.1

Sample Name: CCVL3331245 Acquired: 6/15/2015 16:15:46 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01052	.11112	.01621	.10217	.01118	.00114	W .12505	.21913	.00549	.01072	.01040	.01618
Stddev	.00058	.00033	.00339	.00068	.00042	.00008	.00187	.00343	.00010	.00020	.00007	.00002
%RSD	5.5572	.29900	20.930	.66973	3.7702	6.7355	1.4925	1.5647	1.9122	1.8726	.64848	.13057

#1	.01011	.11136	.01860	.10168	.01088	.00120	.12637	.21670	.00542	.01087	.01045	.01619
#2	.01093	.11089	.01381	.10265	.01148	.00109	.12373	.22155	.00556	.01058	.01035	.01616

Check ?	Chk Pass	Chk Warn	Chk Pass									
Value							.10000					
Range							20.000%					

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09967	3.1605	.00983	.21957	.01079	.02070	1.1479	.04280	2.9658	.00847	-.00102	.00908
Stddev	.00123	.0013	.00101	.00019	.00001	.00007	.0054	.00005	.0007	.00007	.00140	.00014
%RSD	1.2386	.04153	10.252	.08802	.13095	.35043	.46703	.11778	.02403	.79463	136.82	1.5020

#1	.09879	3.1596	.00912	.21970	.01078	.02065	1.1441	.04283	2.9653	.00852	-.00202	.00898
#2	.10054	3.1615	.01055	.21943	.01080	.02075	1.1517	.04276	2.9663	.00842	-.00003	.00917

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01500	.51860	.10445	.01078	.01659	.01050	.01619	.06105	.00919	.02072	.01554
Stddev	.00049	.00824	.00033	.00019	.00056	.00003	.00075	.03328	.00023	.00015	.00342
%RSD	3.2765	1.5889	.31261	1.7399	3.4006	.26050	4.6507	54.510	2.5165	.73405	22.007

#1	.01535	.52442	.10422	.01091	.01699	.01052	.01673	.03752	.00903	.02062	.01312
#2	.01466	.51277	.10469	.01064	.01619	.01048	.01566	.08459	.00935	.02083	.01796

Check ?	Chk Pass										
Value											
Range											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6056.8	85691.	5067.5
Stddev	6.4	141.	12.2
%RSD	.10631	.16415	.24139

#1	6061.4	85592.	5076.1
#2	6052.3	85791.	5058.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0069	.00272	-0.00078	.00197	.00044	.00000	.00289	.02230	.00020
Stddev	.00027	.00029	.00082	.00041	.00014	.00008	.00048	.00249	.00012
%RSD	39.626	10.787	105.43	20.679	31.915	2209.3	16.443	11.153	57.797

#1	-0.00089	.00293	-0.00020	.00225	.00053	-0.00005	.00256	.02406	.00028
#2	-0.00050	.00251	-.00136	.00168	.00034	.00006	.00323	.02054	.00012

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00015	.00021	.00097	.00675	-.03828	.00001	.00464	.00050	.00011
Stddev	.00010	.00010	.00014	.00073	.02701	.00202	.00032	.00005	.00000
%RSD	69.106	48.029	14.258	10.840	70.544	24341.	6.9033	9.1949	1.3403

#1	.00008	.00014	.00087	.00624	-.01919	-.00142	.00486	.00053	.00011
#2	.00022	.00028	.00106	.00727	-.05738	.00144	.00441	.00047	.00011

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01875	-.00024	.00164	-.00082	.00475	-.00011	-.00449	.02312	-.00056
Stddev	.00951	.00008	.00120	.00129	.00009	.00066	.00120	.01419	.00027
%RSD	50.710	35.695	73.032	157.76	1.9928	619.28	26.692	61.374	48.483

#1	.02548	-.00018	.00079	.00009	.00468	-.00058	-.00534	.01309	-.00037
#2	.01203	-.00030	.00249	-.00173	.00481	.00036	-.00364	.03316	-.00076

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00006	.00057	.00013	-.00083	.01568	-.00136	-.00179	.00251
Stddev	.00002	.00029	.00011	.00135	.00498	.00057	.00020	.00221
%RSD	24.355	51.219	84.977	163.02	31.725	41.534	11.410	88.198

#1	.00007	.00078	.00005	.00013	.01920	-.00096	-.00194	.00094
#2	.00005	.00037	.00021	-.00179	.01217	-.00176	-.00165	.00407

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6111.9	86325.	5148.3
Stddev	13.9	52.	1.4
%RSD	.22772	.06009	.02744

#1	6102.1	86362.	5147.3
#2	6121.7	86288.	5149.3

Sample Name: LCS 280-281103/2-A Acquired: 6/15/2015 16:21:03 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281103 6010C

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05173	1.9989	.99466	1.0327	2.1514	.05114	2.0844	51.151	.10268
Stddev	.00032	.0014	.00041	.0013	.0021	.00021	.0008	.029	.00030
%RSD	.62102	.06742	.04096	.12833	.09957	.41112	.03924	.05618	.29684
#1	.05150	1.9979	.99495	1.0336	2.1529	.05099	2.0850	51.171	.10290
#2	.05195	1.9999	.99437	1.0317	2.1499	.05129	2.0838	51.130	.10247

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50234	.20251	.26116	F 1.4859	50.710	1.0619	49.889	.50883	1.0561
Stddev	.00010	.00002	.00102	.0054	.004	.0038	.055	.00038	.0011
%RSD	.02045	.01084	.39212	.36174	.00749	.35455	.11029	.07400	.10224
#1	.50226	.20252	.26044	1.4821	50.707	1.0645	49.850	.50910	1.0553
#2	.50241	.20249	.26189	1.4897	50.712	1.0592	49.928	.50857	1.0568

Check ? High Limit Low Limit
 Chk Pass Chk Pass Chk Pass Chk Fail 1.1400 .88000 Chk Pass Chk Pass Chk Pass Chk Pass

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	52.850	.49732	10.392	.50350	2.0373	.50669	2.0341	10.284	2.0095
Stddev	.060	.00021	.008	.00122	.0001	.00404	.0041	.008	.0009
%RSD	.11350	.04278	.07374	.24310	.00310	.79743	.20145	.07482	.04413
#1	52.893	.49717	10.387	.50264	2.0372	.50384	2.0312	10.289	2.0101
#2	52.808	.49747	10.398	.50437	2.0373	.50955	2.0370	10.279	2.0089

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0400	.98820	1.0339	1.9982	2.0900	.50119	F 1.4147	.55490
Stddev	.0017	.00331	.0002	.0042	.0319	.00121	.0010	.00128
%RSD	.16090	.33497	.01619	.20791	1.5279	.24072	.06724	.23013
#1	1.0412	.98586	1.0338	2.0012	2.1126	.50033	1.4154	.55400
#2	1.0388	.99054	1.0340	1.9953	2.0674	.50204	1.4141	.55581

Check ? High Limit Low Limit
 Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Fail .55000 .42500 Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5852.9	82269.	5128.9
Stddev	15.2	27.	1.2
%RSD	.25894	.03223	.02386
#1	5863.6	82251.	5129.7
#2	5842.2	82288.	5128.0

Sample Name: 280-70278-B-1-A Acquired: 6/15/2015 16:23:28 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 281103 6010C

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0066	.71685	.00322	.04381	.05547	.00023	-0.00085	4.6772	.00035
Stddev	.00065	.00170	.00160	.00049	.00054	.00008	.00245	.0010	.00008
%RSD	98.692	.23752	49.881	1.1267	.96684	35.551	288.86	.02090	22.447
#1	-.00020	.71806	.00208	.04346	.05509	.00028	.00088	4.6779	.00041
#2	-.00112	.71565	.00435	.04415	.05585	.00017	-.00258	4.6765	.00030

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00973	.00139	.00349	.23080	1.3022	-0.00034	3.8064	.12148	.00230
Stddev	.00008	.00007	.00067	.00320	.0029	.00034	.0178	.00030	.00015
%RSD	.82856	4.9488	19.258	1.3852	.22188	98.570	.46811	.24392	6.7007
#1	.00979	.00134	.00396	.23306	1.3043	-.00058	3.8190	.12169	.00219
#2	.00968	.00144	.00301	.22854	1.3002	-.00010	3.7938	.12127	.00241

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.842	.03354	.02155	-0.00020	6.1203	.00003	.00402	3.1395	-0.00002
Stddev	.272	.00035	.00007	.00056	.0158	.00103	.00152	.0007	.00024
%RSD	1.8297	1.0498	.30201	277.40	.25833	3399.6	37.887	.02244	1201.2
#1	15.034	.03329	.02151	.00019	6.1091	-.00070	.00294	3.1400	-.00019
#2	14.650	.03379	.02160	-.00060	6.1315	.00076	.00510	3.1390	.00015

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00604	.00151	.02595	.00121	-0.01668	-0.00000	.00401	.00078
Stddev	.00002	.00247	.00000	.00045	.03048	.00009	.00000	.00044
%RSD	.29219	163.86	.00102	37.364	182.73	2199.7	.03051	56.607
#1	.00602	.00326	.02595	.00089	-.03823	-.00007	.00401	.00047
#2	.00605	-.00024	.02595	.00154	.00487	.00006	.00401	.00110

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6120.6	86011.	5197.7
Stddev	4.6	26.	7.0
%RSD	.07477	.03030	.13465
#1	6117.4	86029.	5202.7
#2	6123.9	85992.	5192.8

Sample Name: 280-70278-B-1-A SD@5 Acquired: 6/15/2015 16:26:05 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 281103 6010C

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00001	.14905	.00031	.01004	.01163	.00012	.00350	.99409	.00040
Stddev	.00000	.00284	.00224	.00064	.00012	.00002	.00337	.00233	.00010
%RSD	64.703	1.9064	720.23	6.3993	1.0533	18.206	96.335	.23446	24.551
#1	.00001	.15106	.00190	.01050	.01155	.00014	.00588	.99574	.00033
#2	.00000	.14704	-.00127	.00959	.01172	.00011	.00111	.99244	.00047

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00193	.00035	.00067	.04572	.25575	.00192	.80174	.02538	.00040
Stddev	.00015	.00009	.00039	.00073	.00513	.00020	.00616	.00015	.00024
%RSD	7.5291	26.230	58.303	1.5937	2.0064	10.567	.76803	.57496	59.413
#1	.00183	.00041	.00040	.04520	.25938	.00178	.80610	.02549	.00023
#2	.00203	.00028	.00095	.04623	.25212	.00206	.79739	.02528	.00057

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.1081	.00668	.00485	.00011	1.2091	-.00111	-.00180	.65115	-.00095
Stddev	.0025	.00063	.00308	.00018	.0148	.00043	.00310	.00186	.00040
%RSD	.08119	9.4623	63.534	170.91	1.2216	38.245	172.02	.28630	41.972
#1	3.1099	.00713	.00703	.00024	1.2195	-.00081	.00039	.64983	-.00123
#2	3.1063	.00623	.00267	-.00002	1.1987	-.00141	-.00400	.65247	-.00067

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00125	.00010	.00601	-.00090	.02795	-.00079	-.00106	.00067
Stddev	.00001	.00114	.00062	.00031	.00110	.00032	.00020	.00226
%RSD	.83960	1165.1	10.316	34.363	3.9371	40.515	18.413	337.26
#1	.00126	.00091	.00645	-.00068	.02717	-.00057	-.00092	-.00093
#2	.00124	-.00071	.00557	-.00112	.02872	-.00102	-.00120	.00227

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6105.6	86307.	5166.5
Stddev	.1	227.	21.9
%RSD	.00129	.26292	.42457
#1	6105.6	86147.	5182.0
#2	6105.7	86467.	5151.0

Sample Name: 280-70278-B-1-B MS Acquired: 6/15/2015 16:28:44 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281103 6010C

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05143	2.6244	F 2.8889	.98561	1.0634	2.1843	.05111	2.0484	55.280
Stddev	.00061	.0018	.0073	.00696	.0005	.0013	.00028	.0004	.004
%RSD	1.1806	.06730	.25423	.70661	.04770	.06105	.54413	.02093	.00801

#1	.05100	2.6256	2.8838	.99054	1.0630	2.1833	.05131	2.0487	55.277
#2	.05186	2.6231	2.8941	.98069	1.0637	2.1852	.05092	2.0481	55.284

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass					
High Limit			1000.0						
Low Limit			3.0000						

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10200	.50405	.20049	.25984	1.2252	51.377	1.0522	53.233	.62102
Stddev	.00076	.00020	.00026	.00017	.0008	.136	.0015	.029	.00044
%RSD	.74984	.03963	.13098	.06553	.06884	.26400	.14166	.05533	.07041

#1	.10254	.50419	.20068	.25972	1.2246	51.281	1.0511	53.213	.62133
#2	.10146	.50390	.20031	.25996	1.2258	51.473	1.0532	53.254	.62071

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0428	67.095	.52150	10.289	.49559	8.2879	.50721	2.0048	13.415
Stddev	.0029	.257	.00058	.018	.00267	.0326	.00119	.0092	.008
%RSD	.27324	.38365	.11047	.17391	.53900	.39275	.23534	.45779	.06153

#1	1.0448	66.913	.52191	10.302	.49370	8.3109	.50805	2.0113	13.409
#2	1.0408	67.277	.52109	10.277	.49748	8.2649	.50636	1.9983	13.421

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9871	1.0305	.97631	1.0535	1.9678	2.0975	.49827	.50449	.54868
Stddev	.0028	.0009	.00442	.0004	.0016	.0238	.00073	.00248	.00054
%RSD	.13923	.08640	.45316	.04100	.08026	1.1345	.14641	.49108	.09805

#1	1.9891	1.0312	.97318	1.0538	1.9689	2.1143	.49879	.50624	.54830
#2	1.9852	1.0299	.97943	1.0532	1.9667	2.0807	.49776	.50274	.54906

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	5883.4	82315.	5179.6
Stddev	8.8	161.	1.1
%RSD	.14877	.19515	.02173

#1	5877.2	82201.	5178.9
#2	5889.6	82429.	5180.4

Sample Name: 280-70278-B-1-C MSD Acquired: 6/15/2015 16:31:07 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281103 6010C

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05097	2.6477	F 2.9193	.99123	1.0689	2.2139	.05144	2.0695	55.778
Stddev	.00122	.0037	.0221	.00320	.0013	.0006	.00017	.0083	.049
%RSD	2.3919	.14089	.75530	.32331	.12120	.02835	.32648	.40084	.08786
#1	.05184	2.6504	2.9037	.98896	1.0679	2.2135	.05132	2.0753	55.743
#2	.05011	2.6451	2.9349	.99349	1.0698	2.2144	.05156	2.0636	55.813

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass					
High Limit			1000.0						
Low Limit			3.0000						

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10334	.50951	.20240	.26255	1.2229	51.746	1.0578	53.686	.62763
Stddev	.00035	.00075	.00075	.00067	.0050	.209	.0018	.020	.00052
%RSD	.34201	.14813	.37184	.25486	.40841	.40314	.17115	.03739	.08298
#1	.10309	.51004	.20294	.26302	1.2194	51.598	1.0565	53.700	.62800
#2	.10359	.50897	.20187	.26207	1.2264	51.893	1.0590	53.671	.62726

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0524	67.270	.52631	10.382	.50158	8.3122	.50680	2.0286	13.460
Stddev	.0012	.045	.00097	.011	.00056	.0096	.00054	.0013	.011
%RSD	.11666	.06730	.18489	.10659	.11139	.11587	.10572	.06333	.08418
#1	1.0533	67.302	.52699	10.390	.50118	8.3190	.50642	2.0295	13.452
#2	1.0516	67.238	.52562	10.375	.50197	8.3054	.50718	2.0277	13.468

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0039	1.0414	.98879	1.0620	1.9844	2.0685	.50435	.51350	.55007
Stddev	.0021	.0016	.00070	.0001	.0011	.0908	.00088	.00036	.00229
%RSD	.10287	.15514	.07048	.01102	.05660	4.3911	.17377	.06926	.41674
#1	2.0024	1.0403	.98830	1.0619	1.9836	2.0043	.50497	.51325	.54845
#2	2.0053	1.0425	.98928	1.0621	1.9852	2.1328	.50373	.51375	.55169

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5853.0	82193.	5153.2
Stddev	2.7	39.	7.6
%RSD	.04638	.04734	.14799
#1	5851.1	82166.	5158.6
#2	5854.9	82221.	5147.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02701	1.6624	.19232	.14223	.15827	.04919	-.00888	23.893	.04978
Stddev	.00056	.0014	.00239	.00058	.00082	.00013	.00008	.008	.00011
%RSD	2.0606	.08628	1.2417	.40924	.51566	.26972	.92921	.03281	.21507

#1	.02741	1.6614	.19400	.14181	.15769	.04909	-.00882	23.899	.04985
#2	.02662	1.6634	.19063	.14264	.15885	.04928	-.00893	23.888	.04970

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05769	.04954	.05443	1.2039	20.572	.10297	22.756	.16662	.05108
Stddev	.00047	.00011	.00019	.0013	.048	.00153	.016	.00008	.00049
%RSD	.81215	.22088	.34844	.10772	.23125	1.4853	.06826	.04901	.96216

#1	.05802	.04962	.05456	1.2048	20.538	.10405	22.767	.16656	.05073
#2	.05736	.04946	.05429	1.2030	20.606	.10189	22.745	.16668	.05142

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	34.615	.08027	1.9632	.09607	6.1169	.09812	.19484	8.0312	.09792
Stddev	.161	.00017	.0001	.00146	.0126	.00041	.00165	.0323	.00089
%RSD	.46513	.21456	.00294	1.5180	.20537	.42010	.84866	.40238	.90910

#1	34.729	.08015	1.9633	.09504	6.1258	.09783	.19601	8.0083	.09855
#2	34.501	.08040	1.9632	.09710	6.1080	.09841	.19367	8.0540	.09729

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05605	.18732	.08084	.19657	.51997	.04800	.20562	.05882
Stddev	.00000	.00131	.00172	.00122	.00174	.00056	.00178	.00038
%RSD	.00353	.70193	2.1263	.62133	.33466	1.1690	.86794	.64318

#1	.05605	.18825	.07962	.19744	.51874	.04760	.20436	.05855
#2	.05605	.18639	.08205	.19571	.52120	.04839	.20688	.05909

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5990.4	84243.	5192.3
Stddev	.9	183.	14.6
%RSD	.01421	.21689	.28160

#1	5989.8	84114.	5181.9
#2	5991.0	84372.	5202.6

Sample Name: 280-70278-B-2-A Acquired: 6/15/2015 16:36:01 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281103 6010C

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00007	.16708	.00267	.06307	.04071	.00028	.00073	2.0115	.00024
Stddev	.00033	.00076	.00023	.00028	.00004	.00003	.00033	.0084	.00003
%RSD	500.50	.45254	8.4588	.44769	.08969	9.9423	44.815	.41858	11.748
#1	.00030	.16655	.00251	.06287	.04073	.00030	.00096	2.0174	.00022
#2	-.00017	.16761	.00283	.06327	.04068	.00026	.00050	2.0055	.00027

Check ? High Limit Low Limit
Chk Pass Chk Pass

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01111	.00091	.00272	.00256	.82761	.00378	4.8487	.26050	.00049
Stddev	.00000	.00002	.00055	.00153	.00901	.00027	.0136	.00002	.00012
%RSD	.00030	2.3442	20.082	59.796	1.0881	7.1734	.27955	.00750	25.128
#1	.01111	.00089	.00311	.00148	.82125	.00397	4.8583	.26048	.00058
#2	.01111	.00092	.00233	.00365	.83398	.00359	4.8391	.26051	.00040

Check ? High Limit Low Limit
Chk Pass Chk Pass

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.195	.02267	.00747	-.00132	9.8774	-.00059	.00155	3.0566	-.00055
Stddev	.082	.00009	.00117	.00103	.0121	.00189	.00345	.0207	.00058
%RSD	.47936	.38065	15.655	78.593	.12279	318.20	223.06	.67579	105.37
#1	17.137	.02274	.00830	-.00058	9.8688	-.00193	-.00089	3.0712	-.00096
#2	17.253	.02261	.00664	-.00205	9.8860	.00074	.00398	3.0420	-.00014

Check ? High Limit Low Limit
Chk Pass Chk Pass

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00490	-.00111	.00030	-.00060	.01296	-.00053	.00760	.00087
Stddev	.00006	.00065	.00047	.00083	.02405	.00071	.00016	.00054
%RSD	1.3226	58.396	156.45	137.41	185.52	135.74	2.1288	61.792
#1	.00486	-.00157	-.00003	-.00002	.02997	-.00002	.00771	.00049
#2	.00495	-.00065	.00063	-.00119	-.00404	-.00103	.00748	.00125

Check ? High Limit Low Limit
Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6102.1	85992.	5230.2
Stddev	1.6	275.	14.3
%RSD	.02561	.31964	.27292
#1	6103.2	85798.	5220.2
#2	6101.0	86187.	5240.3

Sample Name: 280-70278-B-3-A Acquired: 6/15/2015 16:38:38 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 281103 6010C

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0033	.20823	.00103	.05667	.03057	.00025	.00131	3.7147	-0.0009
Stddev	.00010	.00043	.00007	.00004	.00028	.00007	.00359	.0022	.00019
%RSD	30.434	.20811	6.8340	.06670	.90355	29.191	274.23	.06005	212.13
#1	-.00026	.20793	.00098	.05670	.03077	.00020	-.00123	3.7163	-.00022
#2	-.00041	.20854	.00108	.05664	.03038	.00030	.00385	3.7131	.00004

Check ? Chk Pass
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00941	.00195	.00324	.00460	1.3490	.00153	6.0382	.55378	.00029
Stddev	.00003	.00014	.00009	.00152	.0491	.00059	.0061	.00037	.00013
%RSD	.35814	7.3816	2.8589	33.003	3.6361	38.722	.10089	.06644	43.942
#1	.00943	.00184	.00331	.00353	1.3143	.00111	6.0425	.55404	.00020
#2	.00938	.00205	.00318	.00568	1.3837	.00196	6.0339	.55352	.00038

Check ? Chk Pass
 High Limit
 Low Limit

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	18.247	.01900	.00910	-.00127	8.0636	-.00127	-.00271	2.4899	-.00103
Stddev	.368	.00002	.00073	.00023	.0150	.00072	.00231	.0160	.00058
%RSD	2.0155	.11009	7.9863	18.038	.18550	56.556	85.360	.64123	56.713
#1	18.507	.01902	.00859	-.00143	8.0530	-.00178	-.00107	2.4786	-.00061
#2	17.987	.01899	.00961	-.00111	8.0741	-.00076	-.00434	2.5012	-.00144

Check ? Chk Pass
 High Limit
 Low Limit

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00652	-.00026	.00022	-.00090	.02031	-.00091	.00125	.00307
Stddev	.00000	.00201	.00002	.00034	.02884	.00041	.00036	.00026
%RSD	.06675	765.47	7.6855	38.407	141.98	44.536	28.495	8.3636
#1	.00652	.00116	.00020	-.00065	-.00008	-.00120	.00100	.00325
#2	.00652	-.00168	.00023	-.00114	.04070	-.00063	.00150	.00289

Check ? Chk Pass
 High Limit
 Low Limit

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6070.1	85561.	5159.7
Stddev	10.1	146.	.7
%RSD	.16636	.17028	.01452
#1	6062.9	85458.	5160.2
#2	6077.2	85664.	5159.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0055	.21617	-0.00172	.05847	.03206	.00015	-0.00039	3.8609	.00018
Stddev	.00018	.00028	.00243	.00029	.00011	.00003	.00169	.0065	.00002
%RSD	32.638	.13124	141.11	.49115	.34442	18.680	437.35	.16815	12.251

#1	-0.0043	.21597	-0.0000	.05827	.03214	.00017	-.00158	3.8563	.00020
#2	-0.00068	.21637	-.00343	.05868	.03199	.00013	.00081	3.8655	.00016

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00937	.00211	.00326	.02406	1.3158	.00081	6.2313	.57402	.00025
Stddev	.00035	.00012	.00005	.00251	.0876	.00110	.0020	.00054	.00005
%RSD	3.7693	5.5369	1.6526	10.418	6.6602	136.45	.03239	.09323	21.602

#1	.00962	.00219	.00329	.02229	1.3778	.00159	6.2327	.57440	.00021
#2	.00912	.00202	.00322	.02584	1.2538	.00003	6.2299	.57364	.00028

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	19.094	.01988	.00833	.00035	8.3721	-.00125	-.00363	2.5789	.00006
Stddev	.028	.00003	.00170	.00033	.0098	.00026	.00020	.0048	.00026
%RSD	.14568	.16943	20.437	95.051	.11652	20.941	5.6101	.18495	450.11

#1	19.074	.01985	.00713	.00058	8.3790	-.00107	-.00377	2.5823	.00024
#2	19.113	.01990	.00954	.00011	8.3652	-.00144	-.00348	2.5756	-.00013

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00687	-.00040	.00015	-.00092	.04768	-.00028	.00289	.00035
Stddev	.00008	.00013	.00042	.00015	.00105	.00084	.00011	.00047
%RSD	1.2327	32.311	281.46	16.643	2.2048	300.01	3.9062	131.36

#1	.00693	-.00031	.00045	-.00081	.04843	.00031	.00297	.00003
#2	.00681	-.00049	-.00015	-.00102	.04694	-.00087	.00281	.00068

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6048.1	84948.	5160.2
Stddev	9.7	3.	23.5
%RSD	.16005	.00375	.45519

#1	6054.9	84946.	5176.8
#2	6041.3	84950.	5143.6

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00101	50.418	-0.00372	.00392	.00026	-0.00007	1.0023	.00623	-0.00113	.00110	.00015	.01731	50.890
Stddev	.00069	.079	.00121	.00001	.00003	.00010	.0054	.00079	.00001	.00010	.00001	.00014	.041
%RSD	68.822	.15749	32.489	.36613	11.443	140.15	.54075	12.764	1.0728	9.4969	7.3961	.82041	.08062

#1	-0.00052	50.474	-0.00457	.00393	.00024	-0.00014	1.0061	.00566	-0.00114	.00117	.00014	.01721	50.919
#2	-0.00150	50.362	-0.00286	.00391	.00028	-0.00000	.99846	.00679	-0.00112	.00102	.00016	.01741	50.861

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.16926	.00195	.00049	.00139	-0.00163	254.00	.00213	.00530	-0.00206	4.9245	.01346	-0.00075	.01778
Stddev	.05124	.00386	.00453	.00012	.00007	.13	.00023	.00224	.00193	.0056	.00110	.00177	.01915
%RSD	30.274	198.41	923.48	8.8354	4.3293	.05208	10.761	42.388	93.692	.11354	8.1852	235.64	107.71

#1	.13302	.00468	.00369	.00148	-0.00158	254.09	.00197	.00371	-0.00343	4.9285	.01424	-0.00200	.00424
#2	.20549	-0.00078	-0.00271	.00130	-0.00168	253.90	.00229	.00688	-0.00070	4.9206	.01268	.00050	.03133

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00004	.00055	4.8074	.00231	-0.00002	9.8501	.00188	-0.00082	.20450
Stddev	.00005	.00004	.0063	.00010	.00056	.0487	.00030	.00015	.00411
%RSD	135.99	7.0434	.13190	4.2350	3003.9	.49414	16.231	18.748	2.0116

#1	-0.00000	.00052	4.8119	.00238	.00038	9.8845	.00166	-0.00071	.20159
#2	-0.00007	.00057	4.8029	.00224	-0.00042	9.8157	.00209	-0.00093	.20741

Check ?	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5817.8	80727.	5060.7
Stddev	12.2	18.	2.0
%RSD	.21047	.02196	.03941

#1	5809.2	80715.	5062.1
#2	5826.5	80740.	5059.3

Sample Name: ccv-3330457 Acquired: 6/15/2015 16:46:26 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49034	.50958	.96895	.49411	.52888	.49670	-.05021	5.0235	.50292	.50095	.49410	.50017	2.4884
Stddev	.00192	.00024	.00060	.00151	.00130	.00155	.00093	.0233	.00037	.00107	.00089	.00025	.0034
%RSD	.39220	.04791	.06232	.30576	.24517	.31249	1.8502	.46389	.07354	.21333	.17996	.05075	.13585

#1	.49170	.50941	.96852	.49304	.52980	.49780	-.05087	5.0400	.50266	.50020	.49348	.50035	2.4908
#2	.48898	.50975	.96937	.49518	.52796	.49560	-.04955	5.0071	.50318	.50171	.49473	.49999	2.4861

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.196	1.0475	19.688	.49767	.49752	5.2594	.49783	.97883	1.0147	-.00464	.99454	.97336	5.0043
Stddev	.165	.0046	.016	.00051	.00063	.0310	.00041	.00610	.0013	.00202	.00256	.00173	.0075
%RSD	.33479	.44016	.08111	.10215	.12598	.58950	.08136	.62301	.12362	43.473	.25731	.17799	.14890

#1	49.313	1.0507	19.700	.49731	.49707	5.2813	.49811	.98314	1.0156	-.00607	.99273	.97458	5.0095
#2	49.080	1.0442	19.677	.49803	.49796	5.2374	.49754	.97451	1.0138	-.00321	.99635	.97213	4.9990

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass								
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.99094	.50741	.01692	.50214	1.0137	.04676	.48342	.49531	.49366
Stddev	.00180	.00124	.00130	.00024	.0008	.03286	.00084	.00242	.00031
%RSD	.18196	.24420	7.6869	.04800	.08248	70.282	.17384	.48769	.06204

#1	.98966	.50829	.01784	.50231	1.0131	.02352	.48282	.49360	.49344
#2	.99221	.50654	.01600	.50197	1.0143	.07000	.48401	.49701	.49388

Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5947.0	83228.	5063.5
Stddev	3.8	32.	25.4
%RSD	.06437	.03860	.50170

#1	5949.7	83251.	5045.5
#2	5944.3	83205.	5081.5

Sample Name: CCB Acquired: 6/15/2015 16:48:52 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0022	-0.0013	.00229	.00135	-0.0012	.00006	.00241	.00463	.00012	-0.0017	.00012	.00016	-0.0086
Stddev	.00011	.00020	.00087	.00013	.00010	.00011	.00241	.00199	.00011	.00014	.00008	.00009	.00199
%RSD	50.187	155.14	37.768	9.4056	88.133	176.55	99.886	42.960	87.274	84.245	61.386	54.645	232.11

#1	-0.0014	-0.0027	.00290	.00126	-0.0019	-0.0002	.00411	.00603	.00020	-0.0007	.00007	.00022	.00055
#2	-0.0030	.00001	.00168	.00144	-0.0004	.00014	.00071	.00322	.00005	-0.0027	.00018	.00010	-0.0227

Check ?	Chk Pass	None	Chk Pass										
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09586	.00115	-0.0024	.00003	.00113	.03334	.00007	.00151	-0.0048	.00501	-0.0012	.00107	-0.1357
Stddev	.04630	.00077	.00235	.00000	.00001	.00784	.00032	.00259	.00055	.00111	.00026	.00019	.00510
%RSD	48.303	66.670	972.26	1.8329	1.2700	23.524	477.35	171.94	112.73	22.200	213.45	17.756	37.621

#1	.12860	.00170	-0.0191	.00003	.00114	.02779	.00030	.00334	-0.0010	.00580	-0.0031	.00094	-0.1718
#2	.06312	.00061	.00142	.00003	.00112	.03888	-0.0016	-0.0033	-0.00087	.00422	.00006	.00121	-0.0996

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass								
High Limit													
Low Limit													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0052	-0.0005	-0.0040	.00030	-0.0053	.03444	-0.0048	-0.00299	.00176
Stddev	.00048	.00003	.00156	.00012	.00040	.01390	.00018	.00002	.00018
%RSD	92.894	49.176	393.73	39.265	75.543	40.375	38.068	.74003	10.437

#1	-0.0086	-0.0007	.00071	.00022	-0.0025	.02460	-0.0061	-0.00301	.00189
#2	-0.0018	-0.0004	-0.00150	.00039	-0.00081	.04427	-0.0035	-0.00298	.00163

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6066.3	85716.	5076.8
Stddev	2.7	77.	6.9
%RSD	.04498	.08979	.13679

#1	6064.4	85662.	5071.9
#2	6068.2	85771.	5081.7

Sample Name: CCVL3331245 Acquired: 6/15/2015 16:51:31 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01045	.11145	.01499	.10224	.01084	.00112	W .12623	.21666	.00554	.01077	.01056	.01644
Stddev	.00064	.00002	.00181	.00065	.00037	.00013	.00115	.00292	.00016	.00024	.00009	.00006
%RSD	6.1337	.02112	12.060	.63878	3.4575	11.342	.91173	1.3474	2.9598	2.2312	.87518	.36319

#1	.01091	.11144	.01627	.10178	.01058	.00103	.12704	.21459	.00542	.01094	.01050	.01648
#2	.01000	.11147	.01371	.10271	.01111	.00121	.12541	.21872	.00565	.01060	.01063	.01640

Check ?	Chk Pass	Chk Warn	Chk Pass									
Value							.10000					
Range							20.000%					

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10332	3.1135	.01166	.22260	.01068	.02030	1.1350	.04274	2.9742	.00845	.00316	.00822
Stddev	.00014	.0433	.00024	.00064	.00001	.00036	.0057	.00017	.0012	.00036	.00205	.00013
%RSD	.13134	1.3893	2.0721	.28691	.12868	1.7756	.50484	.38966	.03933	4.3060	64.795	1.6373

#1	.10341	3.1441	.01149	.22305	.01069	.02004	1.1390	.04286	2.9734	.00871	.00461	.00831
#2	.10322	3.0830	.01183	.22215	.01067	.02055	1.1309	.04262	2.9750	.00819	.00171	.00812

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01553	.52213	.10352	.01068	.01401	.01003	.01609	F .09014	.00944	.02062	.01456
Stddev	.00035	.04624	.00018	.00003	.00080	.00008	.00075	.00478	.00066	.00062	.00033
%RSD	2.2771	8.8569	.17355	.29084	5.7138	.80772	4.6780	5.3027	7.0041	3.0122	2.2696

#1	.01578	.48943	.10339	.01065	.01344	.00997	.01555	.08676	.00897	.02018	.01479
#2	.01528	.55483	.10365	.01070	.01457	.01008	.01662	.09352	.00991	.02106	.01433

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass						
Value								.06000			
Range								30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6121.0	86513.	5162.7
Stddev	7.5	97.	18.8
%RSD	.12248	.11241	.36348

#1	6126.3	86582.	5176.0
#2	6115.7	86445.	5149.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0021	.00799	.00033	.00152	.00020	.00004	.00224	.02760	.00017
Stddev	.00029	.00024	.00056	.00013	.00027	.00009	.00189	.00256	.00001
%RSD	135.75	2.9976	170.79	8.5666	136.63	257.27	84.543	9.2812	5.7800

#1	-0.0001	.00816	-0.0007	.00161	.00001	.00010	.00358	.02578	.00018
#2	-0.00041	.00782	.00073	.00143	.00040	-.00003	.00090	.02941	.00016

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0002	.00032	.00099	.01966	.00466	.00097	.00163	.00029	.00011
Stddev	.00029	.00021	.00011	.00200	.04522	.00100	.00014	.00003	.00003
%RSD	1682.1	64.930	10.977	10.148	970.36	103.25	8.4952	10.918	30.309

#1	-0.0022	.00047	.00091	.01825	.03663	.00167	.00153	.00027	.00013
#2	.00019	.00017	.00106	.02107	-.02731	.00026	.00172	.00031	.00009

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01240	.00012	.00168	-0.00218	.00505	-0.00117	-0.00067	.00060	-0.00005
Stddev	.01004	.00018	.00101	.00052	.00115	.00156	.00190	.01357	.00078
%RSD	80.933	145.61	60.246	23.935	22.778	133.81	283.40	2251.6	1708.9

#1	.00530	.00025	.00096	-.00181	.00423	-.00006	.00067	-.00899	.00051
#2	.01950	-.00000	.00240	-.00254	.00586	-.00227	-.00201	.01020	-.00060

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00000	.00030	-0.00000	-0.00129	.00581	-0.00066	-0.00102	.00037
Stddev	.00000	.00185	.00048	.00019	.02708	.00031	.00010	.00107
%RSD	318.45	619.27	175260.	14.923	466.33	47.341	9.9686	288.27

#1	.00000	-.00101	-.00034	-.00142	.02496	-.00044	-.00109	.00113
#2	-.00000	.00161	.00034	-.00115	-.01334	-.00088	-.00095	-.00038

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6127.5	86579.	5184.7
Stddev	6.8	32.	2.5
%RSD	.11056	.03665	.04837

#1	6132.3	86601.	5183.0
#2	6122.7	86556.	5186.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05126	2.0084	.99198	1.0310	2.1647	.05118	2.0863	51.225	.10304
Stddev	.00045	.0083	.00481	.0021	.0050	.00008	.0001	.163	.00024
%RSD	.87917	.41318	.48447	.20520	.23141	.14738	.00502	.31856	.23048

#1	.05094	2.0026	.98859	1.0295	2.1612	.05113	2.0864	51.109	.10321
#2	.05158	2.0143	.99538	1.0325	2.1683	.05124	2.0862	51.340	.10287

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50193	.20198	.26021	1.0334	50.653	1.0644	50.040	.50864	1.0559
Stddev	.00010	.00002	.00054	.0001	.198	.0076	.002	.00004	.0009
%RSD	.02045	.00942	.20725	.01433	.39021	.71830	.00453	.00854	.08726

#1	.50186	.20197	.25982	1.0335	50.513	1.0590	50.038	.50867	1.0553
#2	.50200	.20200	.26059	1.0333	50.793	1.0698	50.042	.50861	1.0566

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	53.086	.49712	10.400	.50252	2.0241	.50870	2.0282	10.227	2.0112
Stddev	.756	.00128	.023	.00075	.0103	.00456	.0014	.005	.0059
%RSD	1.4246	.25716	.21944	.14979	.51013	.89676	.06934	.05323	.29373

#1	52.551	.49622	10.384	.50199	2.0168	.50547	2.0272	10.231	2.0070
#2	53.620	.49803	10.416	.50305	2.0314	.51192	2.0292	10.223	2.0153

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0387	.98577	1.0376	1.9996	2.0463	.50258	.50631	.55060
Stddev	.0019	.00067	.0009	.0005	.0014	.00118	.00046	.00182
%RSD	.18074	.06815	.08589	.02480	.06603	.23502	.09175	.33094

#1	1.0374	.98529	1.0382	1.9993	2.0472	.50341	.50663	.55189
#2	1.0400	.98624	1.0369	2.0000	2.0453	.50174	.50598	.54931

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5849.6	82215.	5126.0
Stddev	7.4	164.	35.2
%RSD	.12645	.19963	.68724

#1	5854.9	82099.	5150.9
#2	5844.4	82331.	5101.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00050	.00407	.00147	2.8858	.43941	.00017	.00314	21.937	-0.00022
Stddev	.00029	.00045	.00200	.0037	.00043	.00002	.00114	.063	.00002
%RSD	59.461	11.127	136.44	.13005	.09824	11.518	36.340	.28942	9.7189
#1	-0.00029	.00440	.00288	2.8832	.43910	.00018	.00394	21.893	-0.00021
#2	-0.00070	.00375	.00005	2.8885	.43971	.00015	.00233	21.982	-0.00024

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00015	.00065	.00363	.17991	6.1685	.12108	5.9649	.01405	.00306
Stddev	.00012	.00005	.00082	.00114	.1372	.00092	.0074	.00004	.00004
%RSD	81.485	7.4676	22.617	.63399	2.2235	.76241	.12350	.25231	1.4307
#1	-0.00024	.00062	.00305	.18072	6.0715	.12042	5.9701	.01402	.00310
#2	-0.00006	.00069	.00421	.17910	6.2655	.12173	5.9597	.01407	.00303

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1121.6	.00012	.34442	-0.00162	7.1775	-0.00111	.00101	3.7297	-0.00049
Stddev	1.7	.00013	.00874	.00042	.0061	.00008	.00227	.0180	.00027
%RSD	.15071	109.76	2.5385	25.933	.08452	7.3508	224.10	.48141	54.862
#1	1120.4	.00003	.33824	-0.00192	7.1818	-0.00105	-0.00059	3.7170	-0.00030
#2	1122.8	.00022	.35060	-0.00132	7.1732	-0.00117	.00262	3.7424	-0.00069

Check ?	Chk Warn	Chk Pass							
High Limit	500.00								
Low Limit	10.000								

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0963	-0.00026	.00007	.00206	.03429	-0.00057	-0.00104	.00108
Stddev	.0014	.00126	.00021	.00096	.03417	.00098	.00034	.00012
%RSD	.12501	476.93	298.95	46.329	99.657	172.30	32.954	10.710
#1	1.0953	-0.00116	.00022	.00274	.05845	.00012	-0.00128	.00100
#2	1.0973	.00063	-0.00008	.00139	.01013	-0.00126	-0.00080	.00116

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5465.5	74692.	4993.5
Stddev	3.2	195.	16.2
%RSD	.05930	.26150	.32516
#1	5467.8	74554.	5005.0
#2	5463.2	74830.	4982.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0053	.01849	.00208	3.8478	.51604	.00009	.00238	20.047	-0.0016
Stddev	.00031	.00016	.00066	.0023	.00039	.00006	.00068	.014	.00006
%RSD	59.082	.85661	31.796	.05872	.07554	65.359	28.748	.07059	38.901

#1	-0.0075	.01861	.00254	3.8494	.51577	.00014	.00286	20.037	-0.0012
#2	-0.0031	.01838	.00161	3.8462	.51632	.00005	.00189	20.057	-0.0020

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00038	.00059	.00515	.02097	6.0982	.13893	5.6512	.01707	.00097
Stddev	.00001	.00004	.00026	.00099	.1495	.00102	.0041	.00006	.00012
%RSD	3.3385	7.1229	5.0539	4.7273	2.4523	.73168	.07216	.36507	12.188

#1	.00039	.00056	.00534	.02167	5.9925	.13965	5.6541	.01711	.00088
#2	.00037	.00062	.00497	.02027	6.2040	.13821	5.6483	.01702	.00105

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1312.5	.00071	.58267	.00042	.05249	-.00425	.00069	4.5759	-.00127
Stddev	.8	.00016	.00446	.00156	.00653	.00012	.00232	.0390	.00007
%RSD	.06451	22.561	.76526	371.71	12.441	2.7366	335.24	.85192	5.8411

#1	1311.9	.00082	.57951	-.00068	.05710	-.00434	-.00095	4.6034	-.00121
#2	1313.1	.00059	.58582	.00152	.04787	-.00417	.00233	4.5483	-.00132

Check ?	Chk Warn	Chk Pass							
High Limit	500.00								
Low Limit	10.000								

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.1086	-.00002	-.00001	-.00011	.00979	.00009	.00156	-.00005
Stddev	.0006	.00092	.00024	.00218	.00026	.00040	.00009	.00097
%RSD	.05055	4626.6	2505.8	2024.5	2.6638	433.73	5.4895	1986.3

#1	1.1082	-.00067	-.00018	.00143	.00961	.00037	.00150	-.00074
#2	1.1090	.00063	.00016	-.00165	.00998	-.00019	.00162	.00064

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5375.3	73119.	4984.0
Stddev	2.4	94.	.8
%RSD	.04511	.12854	.01631

#1	5373.6	73185.	4984.5
#2	5377.0	73052.	4983.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0095	.00447	-0.0099	3.2400	.37075	.00012	.00053	18.759	-0.0006
Stddev	.00023	.00053	.00065	.0018	.00162	.00004	.00058	.047	.00020
%RSD	23.755	11.841	65.931	.05609	.43766	35.577	109.48	.24989	345.02

#1	-0.0079	.00410	-0.0053	3.2387	.37190	.00015	.00094	18.792	-0.0020
#2	-0.0111	.00485	-0.0145	3.2413	.36960	.00009	.00012	18.726	.00009

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00020	.00039	.00308	.37255	5.4838	.11289	5.2402	.02183	.00077
Stddev	.00039	.00005	.00060	.00571	.2024	.00076	.0002	.00002	.00018
%RSD	195.55	12.355	19.377	1.5318	3.6914	.67491	.00337	.11192	23.269

#1	-0.0008	.00035	.00266	.36851	5.3406	.11343	5.2400	.02182	.00065
#2	.00048	.00042	.00350	.37658	5.6269	.11235	5.2403	.02185	.00090

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1121.0	.00053	.44422	-0.00190	.03594	-0.00092	-0.00079	4.0097	-0.00133
Stddev	2.1	.00061	.00022	.00071	.00113	.00068	.00157	.0229	.00044
%RSD	.18784	114.93	.04868	37.357	3.1460	74.187	199.26	.57176	32.616

#1	1122.5	.00096	.44407	-0.00240	.03514	-0.00140	.00032	3.9935	-0.00164
#2	1119.5	.00010	.44438	-0.00140	.03674	-0.00044	-0.00190	4.0259	-0.00103

Check ?	Chk Warn	Chk Pass							
High Limit	500.00								
Low Limit	10.000								

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.96769	-0.00035	-0.00009	.00091	.00606	-0.00055	-0.00164	.00242
Stddev	.00230	.00189	.00010	.00047	.00416	.00116	.00013	.00096
%RSD	.23801	541.23	108.09	51.709	68.681	209.31	7.7457	39.771

#1	.96932	.00099	-0.00016	.00125	.00900	-0.00137	-0.00155	.00174
#2	.96606	-0.00169	-0.00002	.00058	.00312	.00026	-0.00173	.00310

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5401.8	73889.	4933.1
Stddev	4.9	78.	22.5
%RSD	.09020	.10528	.45602

#1	5398.4	73944.	4917.2
#2	5405.2	73834.	4949.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00019	.00517	.00226	.01147	.00052	.00007	.00209	.06164	-0.00009
Stddev	.00014	.00103	.00156	.00064	.00034	.00011	.00238	.00056	.00003
%RSD	76.843	19.862	68.878	5.5445	66.468	164.91	113.51	.90300	34.006

#1	.00029	.00444	.00116	.01192	.00027	.00014	.00377	.06124	-0.0012
#2	.00009	.00589	.00336	.01102	.00076	-0.00001	.00041	.06203	-0.00007

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00025	.00008	.00109	.00667	.46725	.00340	.01376	.00029	.00029
Stddev	.00022	.00008	.00014	.00335	.05506	.00066	.00172	.00005	.00010
%RSD	88.473	107.43	12.898	50.176	11.783	19.462	12.470	17.398	35.706

#1	-0.00040	.00002	.00099	.00903	.42832	.00386	.01255	.00033	.00036
#2	-0.00009	.00014	.00119	.00430	.50618	.00293	.01497	.00026	.00021

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.1715	.00058	.01189	-0.00065	.02333	-0.00091	-0.00161	.00913	.00023
Stddev	.0797	.00014	.00288	.00017	.00305	.00045	.00031	.02850	.00013
%RSD	6.8052	23.582	24.178	25.616	13.071	49.254	19.056	312.05	57.028

#1	1.2278	.00048	.00986	-0.00053	.02549	-0.00060	-0.00139	.02928	.00033
#2	1.1151	.00067	.01392	-0.00077	.02118	-0.00123	-0.00182	-0.01102	.00014

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00022	.00019	.00046	-0.00230	.04631	-0.00061	-0.00056	.00144
Stddev	.00001	.00090	.00020	.00112	.01789	.00008	.00019	.00161
%RSD	4.8235	477.47	43.800	48.780	38.632	12.730	34.318	112.21

#1	.00023	-0.00045	.00060	-0.00150	.03366	-0.00055	-0.00069	.00257
#2	.00021	.00082	.00031	-0.00309	.05896	-0.00066	-0.00042	.00030

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6068.2	85947.	5116.4
Stddev	10.2	286.	11.7
%RSD	.16786	.33280	.22880

#1	6075.4	85745.	5124.7
#2	6061.0	86149.	5108.1

Sample Name: 280-70339-B-2-A Acquired: 6/15/2015 17:10:56 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 280756 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0053	.00386	.00030	.00747	.00049	.00012	.00227	.04395	.00007
Stddev	.00032	.00037	.00028	.00058	.00005	.00004	.00052	.00009	.00022
%RSD	60.303	9.5762	91.213	7.8022	9.7627	30.421	22.721	.19645	318.81
#1	-0.0076	.00412	.00050	.00788	.00046	.00010	.00191	.04389	.00022
#2	-0.0031	.00360	.00011	.00706	.00053	.00015	.00264	.04401	-0.0008

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0031	.00012	.00133	.00377	.37607	.00271	.00987	.00032	.00024
Stddev	.00009	.00005	.00047	.00083	.06787	.00088	.00046	.00001	.00001
%RSD	28.837	39.163	35.685	22.053	18.047	32.646	4.6790	4.1898	2.5740
#1	-0.0037	.00015	.00167	.00318	.32808	.00208	.01020	.00033	.00024
#2	-0.0025	.00009	.00100	.00436	.42406	.00333	.00955	.00031	.00023

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.56529	.00031	.00644	-0.00096	.02573	-0.00001	-0.00341	.00190	-0.00113
Stddev	.00408	.00016	.00124	.00042	.00167	.00072	.00309	.01740	.00050
%RSD	.72182	51.138	19.219	43.981	6.4729	5537.5	90.690	914.61	44.189
#1	.56817	.00020	.00732	-.00126	.02691	.00050	-.00559	.01421	-.00078
#2	.56240	.00042	.00556	-.00066	.02455	-.00053	-.00122	-.01040	-.00149

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00018	-0.00087	.00018	-0.00067	.00159	-0.00018	-0.00101	-0.00039
Stddev	.00013	.00149	.00003	.00021	.00242	.00019	.00014	.00044
%RSD	73.530	171.57	14.467	31.563	151.72	108.68	13.651	114.19
#1	.00009	-.00192	.00016	-.00052	.00330	-.00032	-.00111	-.00070
#2	.00027	.00019	.00020	-.00082	-.00012	-.00004	-.00091	-.00007

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6056.1	86156.	5169.0
Stddev	7.6	36.	8.4
%RSD	.12485	.04205	.16233
#1	6050.8	86182.	5163.0
#2	6061.5	86131.	5174.9

Sample Name: 280-70339-B-3-A Acquired: 6/15/2015 17:13:37 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 280756 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0017	.00150	.00256	.23432	.13825	.00008	-0.00072	130.01	.00006
Stddev	.00027	.00054	.00025	.00174	.00024	.00007	.00202	.14	.00013
%RSD	157.07	36.118	9.8572	.74047	.17382	80.646	278.66	.10825	210.87

#1	.00002	.00112	.00238	.23555	.13808	.00004	.00070	130.11	-.00003
#2	-.00037	.00189	.00274	.23309	.13842	.00013	-.00215	129.91	.00015

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00019	.00029	.00229	5.0340	3.6749	.01263	33.367	.15456	.00078
Stddev	.00001	.00013	.00034	.0003	.0153	.00011	.003	.00020	.00041
%RSD	7.1346	46.533	14.982	.00531	.41666	.85652	.01035	.12902	53.226

#1	-.00019	.00019	.00205	5.0342	3.6858	.01270	33.369	.15441	.00107
#2	-.00018	.00038	.00254	5.0338	3.6641	.01255	33.364	.15470	.00048

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	114.23	.00122	.01403	-.00124	26.049	-.00318	-.00107	7.5132	-.00047
Stddev	.02	.00018	.00040	.00047	.028	.00205	.00066	.0292	.00014
%RSD	.01634	15.039	2.8268	37.693	.10572	64.413	61.322	.38881	29.731

#1	114.24	.00135	.01375	-.00158	26.068	-.00463	-.00061	7.5339	-.00037
#2	114.22	.00109	.01431	-.00091	26.029	-.00173	-.00153	7.4926	-.00057

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.36996	.00141	-.00018	.00175	-.00186	-.00021	-.00101	.00146
Stddev	.00068	.00016	.00026	.00059	.00723	.00042	.00050	.00051
%RSD	.18253	11.675	146.98	33.570	387.86	196.20	49.419	34.884

#1	.37044	.00153	-.00036	.00134	.00325	.00008	-.00136	.00110
#2	.36948	.00129	.00001	.00217	-.00698	-.00051	-.00065	.00182

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5723.0	80403.	5070.5
Stddev	3.6	316.	7.0
%RSD	.06294	.39362	.13851

#1	5725.5	80627.	5065.5
#2	5720.4	80180.	5075.5

Sample Name: 280-70339-B-4-A Acquired: 6/15/2015 17:16:10 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 280756 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0052	.00307	.00065	.27019	.27917	.00011	-0.00399	289.23	.00020
Stddev	.00029	.00077	.00066	.00122	.00034	.00000	.00036	3.16	.00012
%RSD	55.971	25.060	101.80	.45135	.12176	3.0443	8.9551	1.0911	62.186
#1	-0.0073	.00253	.00111	.26933	.27892	.00011	-.00374	287.00	.00011
#2	-0.0031	.00361	.00018	.27105	.27941	.00011	-.00425	291.47	.00028

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00202	.00039	.00167	24.707	5.7194	.01085	28.099	.20954	.00238
Stddev	.00028	.00013	.00029	.028	.0568	.00016	.254	.00188	.00000
%RSD	13.910	34.086	17.178	.11388	.99287	1.4831	.90241	.89934	.07188
#1	.00182	.00030	.00187	24.726	5.7595	.01073	28.278	.21088	.00238
#2	.00222	.00049	.00146	24.687	5.6792	.01096	27.919	.20821	.00238

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	38.571	.00267	.10023	-0.0037	.13151	-0.0002	-0.0077	14.507	-0.0004
Stddev	.037	.00039	.00003	.00088	.00303	.00092	.00092	.040	.00021
%RSD	.09644	14.470	.02903	237.99	2.3007	3737.4	120.03	.27508	503.75
#1	38.545	.00294	.10021	-0.00099	.12937	.00063	-.00012	14.535	.00011
#2	38.597	.00239	.10025	.00025	.13365	-.00068	-.00142	14.479	-.00019

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52994	-0.00095	.00007	.00009	.02302	.00009	-0.00053	.00199
Stddev	.00079	.00033	.00011	.00014	.05696	.00046	.00005	.00029
%RSD	.14998	34.544	166.79	163.87	247.46	501.82	9.9315	14.668
#1	.53050	-.00072	.00015	-.00001	.06330	-.00023	-.00057	.00179
#2	.52938	-.00118	-.00001	.00019	-.01726	.00041	-.00049	.00220

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5733.7	80654.	5202.4
Stddev	8.9	557.	25.3
%RSD	.15508	.69008	.48715
#1	5740.0	80261.	5184.5
#2	5727.4	81048.	5220.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0059	.00330	.00307	.28156	.29414	.00006	-0.00213	301.34	.00006
Stddev	.00028	.00027	.00157	.00017	.00156	.00002	.00109	.56	.00002
%RSD	47.904	8.0394	50.943	.05962	.53039	32.290	51.420	.18431	39.356
#1	-0.00039	.00349	.00418	.28168	.29525	.00008	-.00290	301.73	.00004
#2	-0.00079	.00311	.00197	.28144	.29304	.00005	-.00135	300.95	.00008

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00177	.00039	.00221	26.080	6.0841	.01019	29.661	.22180	.00272
Stddev	.00026	.00009	.00035	.105	.0451	.00150	.015	.00011	.00000
%RSD	14.544	22.980	15.984	.40233	.74064	14.770	.05031	.05036	.17074
#1	.00158	.00045	.00246	26.154	6.1160	.01125	29.650	.22188	.00272
#2	.00195	.00033	.00196	26.006	6.0522	.00912	29.671	.22172	.00271

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	40.746	.00229	.10727	-0.00117	.12593	-0.00044	.00079	15.239	-0.00070
Stddev	.093	.00006	.00130	.00079	.01043	.00053	.00563	.066	.00016
%RSD	.22850	2.8286	1.2104	67.357	8.2826	121.23	709.49	.43195	23.236
#1	40.681	.00234	.10635	-.00173	.13331	-.00006	-.00319	15.285	-.00081
#2	40.812	.00224	.10819	-.00061	.11856	-.00081	.00478	15.192	-.00058

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.55743	.00019	.00042	.00032	.02481	.00021	-0.00132	.00262
Stddev	.00251	.00030	.00008	.00171	.00813	.00053	.00047	.00036
%RSD	.44961	159.38	19.794	538.02	32.773	255.96	35.217	13.577
#1	.55920	-.00002	.00036	.00152	.01906	-.00017	-.00099	.00287
#2	.55565	.00040	.00048	-.00089	.03056	.00058	-.00165	.00237

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5741.4	80012.	5223.6
Stddev	11.5	30.	25.2
%RSD	.20018	.03797	.48309
#1	5749.6	80034.	5205.8
#2	5733.3	79991.	5241.4

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0086	51.565	-0.0091	.00707	.00020	.00012	1.0299	.01957	-0.0144	.00117	.00025	.01735	51.788
Stddev	.00031	.057	.00579	.00046	.00013	.00002	.0016	.00180	.00003	.00041	.00008	.00030	.095
%RSD	36.005	.11072	634.56	6.4463	66.269	21.335	.15668	9.2027	1.7421	35.272	30.738	1.7286	.18427

#1	-0.0107	51.606	.00318	.00740	.00011	.00013	1.0287	.01830	-0.0146	.00146	.00020	.01714	51.856
#2	-0.0064	51.525	-0.0501	.00675	.00030	.00010	1.0310	.02085	-0.0142	.00088	.00031	.01756	51.721

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06690	-0.0109	.00269	.00150	-0.00193	261.34	.00212	.00741	-0.00133	5.0445	.01290	-0.00116	.00212
Stddev	.08558	.00046	.00188	.00004	.00015	.31	.00013	.00107	.00049	.0049	.00011	.00116	.00075
%RSD	127.92	42.349	69.652	2.3626	8.0017	.11681	6.1425	14.415	36.975	.09625	.83077	99.976	35.138

#1	.00639	-0.00076	.00137	.00152	-0.00204	261.55	.00222	.00666	-0.00099	5.0411	.01297	-0.00034	.00159
#2	.12741	-0.00142	.00402	.00147	-0.00182	261.12	.00203	.00817	-0.00168	5.0480	.01282	-0.00198	.00265

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00032	.00048	4.9728	.00173	-0.00026	10.213	.00127	-0.00087	.21214
Stddev	.00016	.00007	.0043	.00018	.00001	.090	.00052	.00008	.00169
%RSD	51.318	15.518	.08551	10.253	4.3777	.88192	40.512	9.0716	.79497

#1	-0.00020	.00053	4.9758	.00186	-0.00026	10.149	.00091	-0.00081	.21333
#2	-0.00044	.00042	4.9698	.00161	-0.00025	10.277	.00164	-0.00093	.21095

Check ?	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5812.8	80062.	5056.0
Stddev	2.8	215.	33.8
%RSD	.04755	.26868	.66884

#1	5810.8	79910.	5079.9
#2	5814.8	80214.	5032.1

Sample Name: ccv-3330457 Acquired: 6/15/2015 17:24:07 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51214	.51948	.96850	.49774	.52901	.50001	-.05111	5.0610	.50613	.50127	.49743	.50183	2.5164
Stddev	.00084	.00002	.00041	.00024	.00103	.00104	.00223	.0142	.00051	.00054	.00005	.00059	.0148
%RSD	.16441	.00481	.04224	.04848	.19495	.20799	4.3594	.28024	.10172	.10802	.01026	.11718	.58970

#1	.51155	.51950	.96821	.49757	.52974	.50075	-.05268	5.0711	.50649	.50089	.49739	.50225	2.5269
#2	.51274	.51946	.96879	.49791	.52828	.49928	-.04953	5.0510	.50577	.50166	.49747	.50142	2.5059

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.456	1.0479	19.935	.50251	.49590	5.3839	.50079	.97924	1.0165	-.00342	.99272	.97870	5.0032
Stddev	.230	.0031	.003	.00057	.00057	.0256	.00015	.00233	.0009	.00444	.00079	.00025	.0067
%RSD	.46590	.29501	.01545	.11387	.11546	.47651	.03092	.23748	.08962	129.93	.07975	.02585	.13465

#1	49.619	1.0500	19.937	.50211	.49630	5.4020	.50068	.98088	1.0158	-.00656	.99328	.97887	4.9985
#2	49.293	1.0457	19.933	.50292	.49549	5.3657	.50090	.97759	1.0171	-.00028	.99216	.97852	5.0080

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass								
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.98894	.50929	.01662	.50757	1.0114	.04613	.49117	.50908	.50030
Stddev	.00275	.00102	.00143	.00023	.0021	.01020	.00150	.00204	.00230
%RSD	.27829	.20050	8.5729	.04625	.21193	22.121	.30633	.40141	.45919

#1	.98699	.51002	.01763	.50740	1.0129	.03891	.49010	.50763	.49867
#2	.99088	.50857	.01562	.50773	1.0099	.05334	.49223	.51052	.50192

Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5941.4	82824.	5056.6
Stddev	6.0	135.	10.4
%RSD	.10155	.16321	.20559

#1	5945.7	82920.	5049.3
#2	5937.2	82729.	5064.0

Sample Name: CCB Acquired: 6/15/2015 17:26:34 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00009	-.00006	-.00111	F .00420	.00007	.00004	.00084	.01168	.00016	-.00017	.00001	.00004
Stddev	.00013	.00009	.00031	.00044	.00005	.00009	.00042	.00155	.00015	.00014	.00000	.00018
%RSD	140.58	143.53	27.930	10.551	71.389	243.26	50.645	13.253	92.851	84.976	51.754	463.93

#1	.00000	.00000	-.00133	.00451	.00003	.00010	.00054	.01059	.00027	-.00027	.00000	-.00009
#2	.00019	-.00012	-.00089	.00388	.00010	-.00003	.00114	.01278	.00006	-.00007	.00001	.00017

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.00312								
Low Limit				-.00312								

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00553	-.06276	.00116	.00245	.00000	.00113	.08926	.00000	.00371	-.00141	-.00067	.00049
Stddev	.00284	.00285	.00136	.00025	.00011	.00018	.00685	.00012	.00049	.00057	.00304	.00039
%RSD	51.297	4.5479	117.11	10.002	3632.5	15.707	7.6756	2571.2	13.191	40.257	452.08	80.475

#1	.00353	-.06074	.00212	.00228	-.00007	.00100	.09410	.00009	.00336	-.00181	-.00282	.00077
#2	.00754	-.06478	.00020	.00263	.00008	.00125	.08441	-.00008	.00405	-.00101	.00148	.00021

Check ?	Chk Pass	None	Chk Pass									
High Limit												
Low Limit												

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00117	-.00812	-.00018	.00004	.00004	.00039	-.00048	.01197	-.00045	-.00317	.00052
Stddev	.00133	.00583	.00034	.00015	.00007	.00001	.00020	.00630	.00021	.00041	.00047
%RSD	113.62	71.747	188.51	339.88	172.65	2.4904	41.816	52.635	45.967	12.856	90.737

#1	.00023	-.00400	-.00042	.00015	.00009	.00038	-.00034	.00751	-.00059	-.00289	.00019
#2	.00211	-.01224	.00006	-.00006	-.00001	.00040	-.00062	.01642	-.00030	-.00346	.00085

Check ?	Chk Pass										
High Limit											
Low Limit											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6000.2	84700.	5031.2
Stddev	3.6	284.	23.6
%RSD	.06054	.33482	.46950

#1	5997.6	84900.	5047.9
#2	6002.7	84499.	5014.5

Sample Name: CCVL3330451 Acquired: 6/15/2015 17:29:15 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00988	.10946	.01629	.10425	.01071	.00117	W .12180	.22584	.00532	.01080	.01068	.01596
Stddev	.00123	.00023	.00075	.00058	.00025	.00015	.00044	.00102	.00021	.00023	.00030	.00051
%RSD	12.447	.21187	4.5944	.55801	2.3249	12.683	.35851	.45111	3.8767	2.1599	2.8486	3.1999

#1	.01075	.10930	.01682	.10466	.01089	.00127	.12211	.22656	.00517	.01064	.01089	.01632
#2	.00901	.10963	.01576	.10384	.01054	.00106	.12150	.22512	.00547	.01097	.01046	.01560

Check ?	Chk Pass	Chk Warn	Chk Pass									
Value							.10000					
Range							20.000%					

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10963	3.0587	W .01244	.21779	.01064	.02039	1.1750	.04288	2.9741	.00815	-.00942	.00951
Stddev	.00012	.0047	.00192	.00165	.00003	.00011	.0004	.00016	.0090	.00108	.00099	.00113
%RSD	.11276	.15268	15.410	.75820	.24241	.54872	.03795	.36975	.30140	13.272	10.509	11.895

#1	.10971	3.0554	.01108	.21895	.01062	.02047	1.1747	.04299	2.9677	.00891	-.00872	.00871
#2	.10954	3.0620	.01379	.21662	.01065	.02031	1.1753	.04277	2.9804	.00738	-.01012	.01031

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	None	Chk Pass						
Value			.01000									
Range			20.000%									

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01372	.52398	.10392	.01070	.01588	.01051	.01564	W .04229	.00935	.01992	.01768
Stddev	.00337	.02165	.00005	.00005	.00145	.00025	.00009	.04536	.00015	.00037	.00096
%RSD	24.535	4.1314	.04341	.43935	9.1245	2.3668	.60262	107.24	1.6160	1.8749	5.4561

#1	.01134	.53929	.10389	.01074	.01690	.01033	.01557	.01022	.00946	.02019	.01836
#2	.01610	.50867	.10396	.01067	.01485	.01068	.01571	.07437	.00924	.01966	.01700

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass						
Value								.06000			
Range								-20.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6023.4	85471.	5088.8
Stddev	5.2	91.	21.6
%RSD	.08597	.10615	.42474

#1	6027.1	85535.	5104.0
#2	6019.8	85407.	5073.5

Sample Name: 280-70339-B-6-A Acquired: 6/15/2015 17:31:52 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 280756 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0064	.00281	.00447	.06747	.06656	.00008	.00180	105.26	.00014
Stddev	.00032	.00037	.00037	.00040	.00053	.00017	.00068	.41	.00013
%RSD	50.229	13.027	8.2809	.58930	.79758	216.07	37.671	.39274	95.138

#1	-0.00086	.00307	.00473	.06719	.06619	-0.00004	.00228	104.97	.00004
#2	-0.00041	.00255	.00421	.06775	.06694	.00020	.00132	105.55	.00023

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00013	.00025	.00110	1.5244	.56499	.00452	25.870	.48004	.00247
Stddev	.00027	.00012	.00043	.0073	.03012	.00155	.007	.00040	.00016
%RSD	205.27	45.754	39.043	.48162	5.3319	34.246	.02862	.08411	6.3002

#1	-0.00006	.00017	.00140	1.5192	.58629	.00562	25.865	.47975	.00258
#2	.00032	.00033	.00079	1.5296	.54369	.00343	25.875	.48032	.00236

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.1036	.00091	.00753	-0.00115	7.7977	.00109	.00302	7.9368	-0.00023
Stddev	.0305	.00001	.00040	.00113	.0136	.00169	.00300	.0607	.00023
%RSD	.74399	1.5089	5.2786	98.427	.17404	154.10	99.465	.76530	99.856

#1	4.0820	.00092	.00781	-0.00035	7.7881	.00229	.00514	7.8938	-0.00039
#2	4.1252	.00090	.00725	-0.00195	7.8073	-0.00010	.00089	7.9797	-0.00007

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.14113	.00080	.00006	-0.00046	-0.00165	-0.00058	-0.00142	.00260
Stddev	.00074	.00107	.00008	.00004	.00708	.00012	.00032	.00367
%RSD	.52168	134.73	119.76	8.5258	429.23	20.709	22.527	141.06

#1	.14061	.00004	.00001	-0.00049	-0.00666	-0.00067	-0.00165	.00001
#2	.14165	.00156	.00012	-0.00043	.00336	-0.00050	-0.00120	.00520

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5852.0	82305.	5046.1
Stddev	.9	174.	13.9
%RSD	.01541	.21154	.27617

#1	5851.4	82428.	5055.9
#2	5852.7	82182.	5036.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0025	.00306	.00238	.24639	.39814	.00004	-0.00151	147.11	.00020
Stddev	.00097	.00031	.00507	.00018	.00073	.00004	.00257	.07	.00000
%RSD	395.19	10.127	212.83	.07248	.18283	89.618	170.06	.05090	.30667

#1	.00044	.00328	-.00120	.24626	.39762	.00002	-.00333	147.16	.00020
#2	-.00094	.00284	.00597	.24651	.39865	.00007	.00031	147.06	.00020

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0007	.00028	.00210	9.3678	2.3931	.00900	31.331	.09146	.00084
Stddev	.00048	.00013	.00007	.0134	.0482	.00234	.011	.00022	.00033
%RSD	674.98	45.340	3.3993	.14302	2.0131	25.943	.03411	.23881	39.140

#1	-.00041	.00036	.00205	9.3772	2.4272	.00735	31.323	.09130	.00061
#2	.00027	.00019	.00215	9.3583	2.3591	.01066	31.338	.09161	.00107

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	54.463	.00222	.08846	-0.0095	7.9079	-0.0006	-0.00320	8.7599	-0.0081
Stddev	.124	.00001	.00173	.00095	.0048	.00220	.00018	.0330	.00093
%RSD	.22853	.36248	1.9601	99.762	.06042	3489.2	5.5996	.37632	115.90

#1	54.551	.00223	.08968	-.00028	7.9113	.00149	-.00307	8.7832	-.00015
#2	54.375	.00221	.08723	-.00163	7.9045	-.00162	-.00332	8.7366	-.00147

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.38020	.00042	.00037	.00064	-.01377	-0.00067	-0.00073	.00094
Stddev	.00005	.00112	.00004	.00004	.00402	.00000	.00001	.00173
%RSD	.01232	265.67	11.521	6.1315	29.164	.41515	1.7813	184.34

#1	.38023	.00122	.00040	.00067	-.01093	-.00067	-.00074	-.00029
#2	.38017	-.00037	.00034	.00062	-.01661	-.00068	-.00072	.00217

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5757.9	80661.	5051.1
Stddev	9.4	79.	2.3
%RSD	.16377	.09821	.04614

#1	5764.5	80717.	5049.4
#2	5751.2	80605.	5052.7

Sample Name: 280-70339-B-8-A Acquired: 6/15/2015 17:37:02 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment: 280756 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0014	.00258	-0.00020	.25188	.51492	.00009	-0.00318	155.15	-0.00002
Stddev	.00032	.00029	.00084	.00020	.00141	.00008	.00104	.53	.00012
%RSD	225.42	11.139	407.69	.07896	.27311	96.880	32.737	.34441	676.90
#1	-0.00037	.00238	-0.00080	.25202	.51592	.00003	-0.00392	155.53	.00007
#2	.00008	.00279	.00039	.25174	.51393	.00015	-0.00245	154.77	-0.00010

Check ? High Limit Low Limit
Chk Pass Chk Pass

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00015	.00028	.00211	7.6535	2.2573	.00813	32.077	.08858	.00053
Stddev	.00020	.00022	.00008	.0440	.0176	.00008	.013	.00013	.00018
%RSD	132.22	80.914	3.6657	.57555	.78002	1.0369	.03928	.14432	33.727
#1	-0.00030	.00012	.00205	7.6846	2.2698	.00819	32.085	.08867	.00041
#2	-0.00001	.00043	.00216	7.6223	2.2449	.00807	32.068	.08849	.00066

Check ? High Limit Low Limit
Chk Pass Chk Pass

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	44.510	.00163	.12081	-0.00180	6.1665	-0.00245	-0.00472	8.6445	-0.00069
Stddev	.275	.00020	.00033	.00059	.0122	.00027	.00278	.0528	.00043
%RSD	.61893	12.523	.27472	32.858	.19777	11.207	58.813	.61050	62.158
#1	44.704	.00148	.12105	-0.00138	6.1579	-0.00225	-0.00668	8.6818	-0.00099
#2	44.315	.00177	.12058	-0.00222	6.1751	-0.00264	-0.00276	8.6072	-0.00039

Check ? High Limit Low Limit
Chk Pass Chk Pass

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.36681	-0.00034	.00040	.00106	-0.01267	-0.00010	-0.00054	.00183
Stddev	.00127	.00031	.00072	.00068	.00855	.00058	.00029	.00370
%RSD	.34703	92.176	181.43	64.197	67.450	553.71	54.314	202.67
#1	.36771	-0.00056	.00090	.00154	-0.00663	-0.00051	-0.00075	-0.00079
#2	.36591	-0.00012	-0.00011	.00058	-0.01872	.00030	-0.00033	.00445

Check ? High Limit Low Limit
Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5756.9	80686.	5031.7
Stddev	2.5	343.	46.5
%RSD	.04268	.42471	.92432
#1	5758.7	80929.	4998.8
#2	5755.2	80444.	5064.6

Sample Name: 280-70339-B-9-A Acquired: 6/15/2015 17:39:38 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 280756 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0003	.00250	.00240	.21717	.19670	.00007	-0.00209	112.67	.00019
Stddev	.00016	.00054	.00124	.00018	.00101	.00002	.00048	.45	.00013
%RSD	513.63	21.440	51.501	.08180	.51156	28.990	23.091	.40237	70.736
#1	.00008	.00212	.00328	.21704	.19741	.00006	-.00243	113.00	.00009
#2	-.00015	.00288	.00153	.21729	.19599	.00008	-.00175	112.35	.00028

Check ? Chk Pass
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0022	.00027	.00215	7.6869	2.6889	.01350	29.721	.08678	.00515
Stddev	.00020	.00002	.00082	.0435	.0025	.00112	.030	.00008	.00010
%RSD	91.074	8.1208	38.176	.56606	.09371	8.2997	.10111	.09379	1.8728
#1	-.00008	.00026	.00274	7.7176	2.6871	.01429	29.742	.08672	.00508
#2	-.00037	.00029	.00157	7.6561	2.6906	.01270	29.700	.08683	.00522

Check ? Chk Pass
 High Limit
 Low Limit

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	60.761	.00202	.01104	-0.00125	13.935	.00036	-0.00129	9.1246	-0.00019
Stddev	.115	.00044	.00192	.00228	.006	.00041	.00022	.0403	.00092
%RSD	.18870	21.880	17.366	183.04	.04283	113.34	16.827	.44133	478.72
#1	60.842	.00234	.00968	-.00286	13.931	.00007	-.00113	9.1531	.00046
#2	60.680	.00171	.01239	.00037	13.939	.00065	-.00144	9.0961	-.00084

Check ? Chk Pass
 High Limit
 Low Limit

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.33556	.00158	.00048	.00054	.00322	-0.00026	-0.00014	.00150
Stddev	.00143	.00130	.00006	.00083	.02518	.00045	.00005	.00368
%RSD	.42606	81.767	13.220	152.69	781.15	170.50	38.126	244.39
#1	.33657	.00250	.00044	-.00004	-.01458	-.00058	-.00018	-.00110
#2	.33455	.00067	.00053	.00113	.02102	.00005	-.00010	.00410

Check ? Chk Pass
 High Limit
 Low Limit

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5815.1	81733.	5139.0
Stddev	7.5	132.	1.4
%RSD	.12876	.16165	.02654
#1	5820.4	81827.	5140.0
#2	5809.8	81640.	5138.0

Sample Name: 280-70339-B-10-A Acquired: 6/15/2015 17:42:13 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 280756 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00046	.00232	-0.00021	.26430	.29460	.00006	-0.00449	150.96	.00008
Stddev	.00049	.00054	.00032	.00034	.00013	.00011	.00013	.03	.00014
%RSD	107.07	23.344	148.41	.12717	.04463	197.63	2.8635	.01693	180.28

#1	-0.00011	.00271	.00001	.26453	.29451	-0.00002	-0.00458	150.94	-0.00002
#2	-0.00081	.00194	-0.00044	.26406	.29470	.00013	-0.00440	150.98	.00018

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00000	.00044	.00223	7.6987	2.5145	.01128	32.731	.10211	.00042
Stddev	.00021	.00012	.00036	.0012	.0221	.00412	.004	.00001	.00009
%RSD	5329.1	26.808	16.209	.01555	.87886	36.526	.01165	.00607	20.299

#1	.00014	.00036	.00248	7.6995	2.4988	.01419	32.733	.10211	.00036
#2	-0.00015	.00053	.00197	7.6978	2.5301	.00837	32.728	.10211	.00048

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	82.285	.00146	.03646	-0.00213	8.1187	-0.00043	W -0.00510	8.5903	-0.00086
Stddev	.607	.00018	.00045	.00009	.0020	.00043	.00096	.0079	.00025
%RSD	.73818	12.651	1.2307	4.4500	.02507	99.428	18.741	.09244	29.143

#1	82.715	.00133	.03614	-0.00219	8.1172	-0.00013	-0.00443	8.5959	-0.00068
#2	81.855	.00159	.03678	-0.00206	8.1201	-0.00073	-0.00578	8.5846	-0.00104

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass					
High Limit							5.0000		
Low Limit							-0.00500		

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.44620	-0.00047	.00045	.00070	.02230	-0.00021	-0.00096	.00080
Stddev	.00011	.00156	.00018	.00204	.00706	.00040	.00051	.00005
%RSD	.02545	331.68	39.174	290.99	31.645	185.74	52.753	6.2261

#1	.44628	.00063	.00033	-0.00074	.01731	-0.00050	-0.00060	.00083
#2	.44612	-0.00157	.00058	.00214	.02729	.00007	-0.00132	.00076

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5780.5	81272.	5106.4
Stddev	14.0	312.	16.6
%RSD	.24152	.38439	.32416

#1	5790.4	81051.	5094.7
#2	5770.7	81493.	5118.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0060	.00828	-0.0059	.28611	.58547	.00011	-0.00277	164.25	.00026
Stddev	.00046	.00115	.00247	.00146	.00080	.00002	.00334	.04	.00024
%RSD	75.982	13.878	421.74	.50859	.13731	15.620	120.54	.02377	92.077
#1	-0.0028	.00910	-0.0234	.28714	.58604	.00012	-0.0041	164.22	.00009
#2	-0.0092	.00747	.00116	.28508	.58490	.00010	-0.00513	164.28	.00043

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0010	.00032	.00292	15.901	2.5642	.01094	35.517	.10520	.00176
Stddev	.00012	.00008	.00017	.000	.0296	.00226	.017	.00022	.00002
%RSD	119.94	23.880	5.8858	.00075	1.1547	20.647	.04852	.21366	1.1244
#1	-0.0019	.00038	.00304	15.901	2.5851	.00934	35.529	.10504	.00175
#2	-0.0002	.00027	.00280	15.901	2.5433	.01254	35.505	.10536	.00178

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	39.017	.00233	.21450	-0.00215	.10758	-0.00177	-0.0069	9.9172	-0.00122
Stddev	.302	.00018	.00204	.00165	.00127	.00083	.00436	.0294	.00062
%RSD	.77437	7.6772	.94904	76.621	1.1775	46.633	635.49	.29676	50.659
#1	38.804	.00220	.21307	-0.00332	.10669	-0.00119	.00240	9.8964	-0.00078
#2	39.231	.00246	.21594	-0.00099	.10848	-0.00236	-0.00377	9.9380	-0.00166

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47430	.00273	.00039	.00081	-0.03310	-0.00006	.00154	.00162
Stddev	.00022	.00072	.00011	.00162	.01080	.00008	.00030	.00067
%RSD	.04666	26.560	28.202	199.68	32.632	135.32	19.802	41.516
#1	.47414	.00324	.00047	.00195	-.04074	-0.00000	.00175	.00114
#2	.47446	.00221	.00031	-0.00033	-.02546	-0.00011	.00132	.00209

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5827.4	81700.	5164.3
Stddev	2.2	317.	5.8
%RSD	.03830	.38847	.11239
#1	5825.8	81924.	5168.4
#2	5829.0	81475.	5160.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0019	.00244	-0.00072	.25653	.71364	.00005	-0.00154	156.88	.00026
Stddev	.00010	.00033	.00149	.00051	.00062	.00006	.00093	.11	.00005
%RSD	55.231	13.495	206.61	.19763	.08651	123.86	60.105	.06764	17.549

#1	-0.0026	.00220	.00033	.25689	.71320	.00001	-0.00220	156.80	.00023
#2	-0.00011	.00267	-.00178	.25618	.71407	.00010	-0.00089	156.95	.00029

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00015	.00033	.00252	12.412	2.7414	.00788	33.068	.09593	.00009
Stddev	.00012	.00015	.00045	.033	.0360	.00029	.044	.00004	.00010
%RSD	77.151	47.255	18.033	.26434	1.3140	3.6434	.13290	.04375	115.87

#1	-0.00023	.00044	.00284	12.389	2.7159	.00808	33.037	.09596	.00016
#2	-0.00007	.00022	.00220	12.435	2.7669	.00768	33.099	.09590	.00002

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	41.354	.00186	.08055	-0.00162	1.2234	-0.00113	-0.00357	9.5387	-0.00104
Stddev	.180	.00023	.00301	.00142	.0035	.00030	.00007	.0391	.00029
%RSD	.43455	12.180	3.7426	87.535	.28409	27.016	1.9915	.40984	28.022

#1	41.227	.00202	.07842	-0.00062	1.2259	-0.00091	-0.00352	9.5110	-0.00084
#2	41.481	.00170	.08268	-0.00262	1.2210	-0.00134	-0.00362	9.5663	-0.00125

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.41738	.00132	.00011	.00024	-0.01007	-0.00036	.00194	.00273
Stddev	.00072	.00087	.00013	.00061	.03640	.00062	.00056	.00041
%RSD	.17137	66.091	110.84	250.22	361.68	171.12	28.846	14.908

#1	.41688	.00193	.00002	-0.00019	-.03581	-0.00080	.00233	.00302
#2	.41789	.00070	.00020	.00067	.01568	.00008	.00154	.00244

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	5849.9	81930.	5136.8
Stddev	3.7	39.	25.7
%RSD	.06309	.04707	.49942

#1	5847.3	81958.	5155.0
#2	5852.5	81903.	5118.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00036	.00460	.00039	.29806	.52285	.00017	-0.00333	193.83	.00039
Stddev	.00014	.00017	.00441	.00056	.00151	.00001	.00046	.85	.00034
%RSD	38.943	3.6155	1132.0	.18805	.28853	5.3301	13.837	.44063	87.705

#1	-0.00045	.00472	.00351	.29846	.52392	.00018	-.00301	194.43	.00015
#2	-0.00026	.00449	-.00273	.29766	.52179	.00017	-.00366	193.22	.00063

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00005	.00058	.00187	11.661	2.9926	.00942	53.211	.24491	.00087
Stddev	.00017	.00008	.00016	.044	.0172	.00041	.016	.00008	.00032
%RSD	339.89	13.407	8.6295	.37821	.57474	4.3005	.02915	.03302	37.125

#1	-0.00017	.00052	.00199	11.692	3.0047	.00914	53.200	.24497	.00064
#2	.00007	.00063	.00176	11.630	2.9804	.00971	53.222	.24486	.00110

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	46.268	.00240	.02502	-0.00224	.83486	.00044	-0.00084	10.551	-0.00082
Stddev	.092	.00025	.00201	.00016	.00448	.00174	.00243	.023	.00049
%RSD	.19792	10.527	8.0481	7.0399	.53693	393.29	291.05	.22200	60.604

#1	46.333	.00222	.02644	-.00235	.83803	.00167	-.00255	10.535	-.00047
#2	46.204	.00258	.02360	-.00213	.83169	-.00079	.00088	10.568	-.00116

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.39268	.00133	.00021	.00169	-0.00082	.00013	-0.00006	.00147
Stddev	.00114	.00163	.00019	.00030	.04936	.00010	.00044	.00218
%RSD	.28979	123.34	91.506	18.062	6022.4	81.982	707.35	148.21

#1	.39348	.00248	.00007	.00147	-.03573	.00005	-.00037	-.00007
#2	.39187	.00017	.00035	.00190	.03409	.00020	.00025	.00302

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5786.9	81195.	5159.7
Stddev	7.2	18.	12.2
%RSD	.12494	.02188	.23649

#1	5792.0	81183.	5151.0
#2	5781.8	81208.	5168.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00021	.01033	.00434	.29328	.51928	.00011	-.00224	191.42	.00019
Stddev	.00018	.00084	.00225	.00045	.00067	.00001	.00033	.32	.00009
%RSD	84.196	8.1623	51.965	.15412	.12984	5.7118	14.730	.16898	48.457
#1	.00034	.00974	.00593	.29360	.51880	.00011	-.00247	191.19	.00025
#2	.00009	.01093	.00274	.29296	.51976	.00012	-.00200	191.65	.00012

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00002	.00037	.00225	11.529	2.9721	.00711	52.198	.24255	.00110
Stddev	.00016	.00007	.00037	.028	.0019	.00217	.079	.00016	.00004
%RSD	687.04	17.807	16.430	.24712	.06272	30.546	.15084	.06420	3.7278
#1	-.00009	.00032	.00251	11.509	2.9734	.00558	52.143	.24244	.00113
#2	.00014	.00042	.00199	11.549	2.9708	.00865	52.254	.24266	.00107

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	45.388	.00217	.02412	-.00200	.90793	.00146	.00202	10.414	-.00044
Stddev	.147	.00009	.00154	.00024	.00326	.00138	.00016	.056	.00075
%RSD	.32418	4.2919	6.3987	11.943	.35948	94.621	7.7020	.53544	171.08
#1	45.284	.00224	.02303	-.00183	.90562	.00048	.00191	10.375	.00009
#2	45.492	.00210	.02521	-.00216	.91024	.00243	.00213	10.454	-.00097

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.38982	-.00009	.00017	.00049	-.00352	-.00053	-.00030	.00164
Stddev	.00038	.00154	.00024	.00051	.02074	.00018	.00035	.00080
%RSD	.09784	1698.1	140.78	103.63	588.84	34.194	119.32	48.905
#1	.38955	-.00118	.00000	.00013	.01114	-.00040	-.00005	.00220
#2	.39009	.00100	.00034	.00085	-.01819	-.00065	-.00055	.00107

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5776.1	81715.	5146.1
Stddev	11.6	55.	22.3
%RSD	.20037	.06745	.43254
#1	5767.9	81754.	5161.8
#2	5784.2	81676.	5130.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0078	.00666	.00393	.29660	.73569	.00011	-0.00167	229.96	.00015
Stddev	.00016	.00033	.00454	.00096	.00200	.00011	.00130	.40	.00018
%RSD	21.043	4.9670	115.66	.32238	.27169	104.25	77.921	.17279	116.63

#1	-0.0067	.00690	.00072	.29728	.73710	.00019	-.00259	230.24	.00027
#2	-0.0090	.00643	.00714	.29592	.73427	.00003	-.00075	229.68	.00003

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00157	.00055	.00250	18.088	2.4870	.00880	54.016	.07832	.00103
Stddev	.00000	.00005	.00027	.009	.0056	.00259	.009	.00016	.00008
%RSD	.07865	9.4670	10.969	.05034	.22533	29.415	.01642	.20049	7.7367

#1	.00157	.00058	.00231	18.094	2.4909	.00697	54.023	.07843	.00109
#2	.00157	.00051	.00270	18.081	2.4830	.01062	54.010	.07821	.00098

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.412	.00324	.02472	-0.00152	15.763	-0.00024	-0.00088	11.741	-0.00106
Stddev	.117	.00026	.00058	.00092	.005	.00095	.00178	.042	.00032
%RSD	.23191	8.0330	2.3500	60.674	.03305	388.77	202.44	.36185	30.669

#1	50.495	.00342	.02513	-.00218	15.759	-.00091	-.00214	11.711	-.00083
#2	50.330	.00305	.02431	-.00087	15.766	.00043	.00038	11.771	-.00129

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.61828	.00012	.00035	.00175	-0.01144	-0.00023	.00038	.00320
Stddev	.00093	.00146	.00007	.00123	.03716	.00034	.00028	.00169
%RSD	.15069	1260.2	20.029	69.902	324.89	147.72	72.700	52.764

#1	.61894	-.00091	.00040	.00262	.01484	-.00047	.00018	.00439
#2	.61762	.00115	.00030	.00089	-.03771	.00001	.00057	.00201

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5710.4	80532.	5052.4
Stddev	4.2	270.	25.4
%RSD	.07382	.33508	.50267

#1	5707.5	80723.	5034.4
#2	5713.4	80342.	5070.4

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0031	51.502	-0.00317	.00497	-0.00002	.00006	1.0188	.02371	-0.00128	.00127	.00052	.01741	51.621
Stddev	.00011	.101	.00568	.00056	.00023	.00007	.0014	.00047	.00003	.00002	.00003	.00015	.111
%RSD	35.956	.19644	179.24	11.328	1216.6	112.51	.13728	1.9724	2.4690	1.4346	5.5042	.84581	.21494

#1	-0.00039	51.573	.00085	.00537	-0.00018	.00001	1.0197	.02338	-0.00130	.00128	.00054	.01752	51.700
#2	-0.00023	51.430	-.00718	.00458	.00014	.00012	1.0178	.02405	-0.00125	.00126	.00050	.01731	51.543

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01569	.00313	.00465	.00149	-0.00166	262.09	.00169	.00635	-0.00069	5.0401	.01448	.00024	.03732
Stddev	.09460	.00071	.00142	.00006	.00006	.03	.00047	.00101	.00069	.0033	.00073	.00174	.01279
%RSD	602.81	22.704	30.460	3.7845	3.8707	.00993	27.798	15.924	98.670	.06554	5.0635	735.57	34.269

#1	-.05120	.00364	.00365	.00145	-.00161	262.11	.00202	.00707	-0.00118	5.0377	.01396	.00147	.04637
#2	.08259	.00263	.00565	.00153	-.00170	262.07	.00136	.00564	-0.00021	5.0424	.01500	-.00099	.02828

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00016	.00052	4.9107	.00172	-0.00022	9.9316	.00153	-0.00138	.21089
Stddev	.00097	.00003	.0022	.00013	.00084	.0107	.00054	.00043	.00220
%RSD	598.93	6.6386	.04414	7.5145	391.34	.10771	35.315	30.938	1.0449

#1	.00085	.00054	4.9123	.00181	-.00081	9.9391	.00191	-.00107	.20933
#2	-.00052	.00049	4.9092	.00163	.00038	9.9240	.00114	-.00168	.21245

Check ?	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5748.9	80131.	4995.9
Stddev	9.0	105.	1.2
%RSD	.15585	.13077	.02463

#1	5742.5	80056.	4996.7
#2	5755.2	80205.	4995.0

Sample Name: ccv-3330457 Acquired: 6/15/2015 18:00:18 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51551	.52037	.98467	.50163	.53715	.50173	-.05137	5.0819	.51020	.50636	.50368	.50674	2.5028
Stddev	.00070	.00042	.00305	.00088	.00123	.00054	.00439	.0007	.00035	.00020	.00029	.00136	.0097
%RSD	.13557	.08044	.31025	.17594	.22985	.10809	8.5440	.01423	.06826	.03961	.05742	.26756	.38581

#1	.51501	.52067	.98251	.50226	.53628	.50211	-.04826	5.0824	.51045	.50650	.50347	.50578	2.4960
#2	.51600	.52007	.98683	.50101	.53803	.50135	-.05447	5.0814	.50995	.50622	.50388	.50770	2.5096

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.692	1.0600	19.931	.50290	.50363	5.3602	.50641	.99470	1.0228	-.00263	1.0049	.98263	5.0303
Stddev	.040	.0010	.025	.00003	.00015	.0041	.00046	.00074	.0012	.00470	.0002	.00386	.0101
%RSD	.07997	.09660	.12576	.00571	.02939	.07644	.09139	.07437	.12114	178.75	.01637	.39237	.19978

#1	49.664	1.0593	19.913	.50288	.50352	5.3631	.50608	.99522	1.0237	-.00596	1.0048	.98535	5.0374
#2	49.721	1.0607	19.949	.50292	.50373	5.3573	.50674	.99417	1.0219	.00069	1.0050	.97990	5.0232

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass								
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0018	.51567	.01974	.51228	1.0291	-.01315	.49063	.50008	.50469
Stddev	.0026	.00017	.00089	.00038	.0003	.01807	.00052	.00162	.00307
%RSD	.25559	.03280	4.5154	.07459	.02965	137.44	.10580	.32460	.60790

#1	1.0036	.51555	.01911	.51201	1.0289	-.02593	.49100	.50123	.50686
#2	.99996	.51579	.02037	.51255	1.0294	-.00037	.49027	.49893	.50252

Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5903.2	82937.	5021.9
Stddev	6.2	36.	5.1
%RSD	.10475	.04317	.10175

#1	5898.8	82962.	5025.5
#2	5907.5	82911.	5018.3

Sample Name: CCB Acquired: 6/15/2015 18:02:45 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00033	.00031	.00275	W .00223	-.00002	.00010	.00089	.01800	-.00001	-.00014	.00007	.00045
Stddev	.00027	.00057	.00079	.00022	.00052	.00011	.00236	.00201	.00015	.00018	.00004	.00044
%RSD	81.181	187.70	28.598	9.9669	2742.6	115.12	266.25	11.146	1607.7	128.14	54.597	97.286

#1	.00051	-.00010	.00331	.00239	.00035	.00002	-.00078	.01942	.00010	-.00026	.00010	.00014
#2	.00014	.00071	.00220	.00207	-.00038	.00018	.00255	.01659	-.00012	-.00001	.00004	.00077

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.00156								
Low Limit				-.00156								

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .67728	-.10246	.00184	.00272	F .00395	.00124	.06476	-.00004	.00073	-.00185	-.00019	.00179
Stddev	.00488	.00864	.00100	.00555	.00006	.00020	.00114	.00014	.00057	.00003	.00235	.00208
%RSD	.72069	8.4372	54.421	203.72	1.5838	16.497	1.7668	344.98	78.151	1.5546	1228.9	116.34

#1	.67383	-.10857	.00113	-.00120	.00399	.00110	.06395	-.00014	.00114	-.00187	-.00185	.00032
#2	.68073	-.09635	.00255	.00665	.00390	.00139	.06557	.00006	.00033	-.00183	.00147	.00326

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit	.04400				.00051							
Low Limit	-.04400				-.00051							

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00118	.01183	-.00034	.00012	.00161	.00022	-.00190	-.02343	-.00105	-.00348	.00084
Stddev	.00265	.00603	.00019	.00002	.00151	.00025	.00015	.01311	.00014	.00018	.00067
%RSD	225.36	50.990	57.209	18.851	93.670	115.80	7.8106	55.952	13.477	5.2575	78.922

#1	.00305	.01610	-.00047	.00014	.00054	.00040	-.00201	-.03269	-.00095	-.00361	.00131
#2	-.00070	.00757	-.00020	.00011	.00268	.00004	-.00180	-.01416	-.00115	-.00335	.00037

Check ?	Chk Pass										
High Limit											
Low Limit											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6011.6	85072.	5041.3
Stddev	1.5	319.	39.8
%RSD	.02549	.37504	.79020

#1	6010.5	84846.	5013.1
#2	6012.6	85297.	5069.4

Sample Name: CCVL3330451 Acquired: 6/15/2015 18:05:25 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01010	.11674	.01277	.10196	.01061	.00120	W .12050	.23645	.00556	.01029	.01046	.01627
Stddev	.00036	.00165	.00131	.00048	.00012	.00008	.00135	.00158	.00001	.00009	.00006	.00030
%RSD	3.5392	1.4174	10.248	.46990	1.1440	6.6120	1.1202	.66936	.14652	.92140	.54062	1.8579

#1	.00985	.11557	.01185	.10230	.01052	.00125	.11954	.23757	.00555	.01036	.01050	.01649
#2	.01035	.11791	.01370	.10163	.01069	.00114	.12145	.23533	.00556	.01022	.01042	.01606

Check ?	Chk Pass	Chk Warn	Chk Pass									
Value							.10000					
Range							20.000%					

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10087	3.0499	W .01248	.21773	.01057	.02038	1.1475	.04243	2.9497	.00910	.00287	.00888
Stddev	.00091	.0516	.00011	.00360	.00003	.00001	.0008	.00003	.0004	.00082	.00419	.00190
%RSD	.90135	1.6908	.88513	1.6538	.31862	.05452	.07012	.06116	.01288	8.9635	145.97	21.342

#1	.10023	3.0863	.01240	.21518	.01055	.02037	1.1481	.04241	2.9500	.00967	.00583	.00754
#2	.10152	3.0134	.01256	.22027	.01059	.02039	1.1470	.04245	2.9494	.00852	-.00009	.01022

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	None	Chk Pass						
Value			.01000									
Range			20.000%									

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .01055	.52909	.10375	.01063	.01460	.01034	.01549	F .04148	.00932	.02022	.01685
Stddev	.00186	.01488	.00030	.00019	.00155	.00041	.00036	.01933	.00046	.00034	.00304
%RSD	17.625	2.8118	.28771	1.7961	10.623	3.9828	2.3263	46.611	4.9864	1.6926	18.033

#1	.00923	.51857	.10354	.01077	.01351	.01005	.01524	.05515	.00899	.01998	.01470
#2	.01186	.53961	.10396	.01050	.01570	.01063	.01575	.02781	.00965	.02046	.01900

Check ?	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass					
Value	.01500							.06000			
Range	-20.000%							-30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6003.9	85032.	5049.7
Stddev	5.1	123.	27.7
%RSD	.08575	.14439	.54756

#1	6007.5	84945.	5030.1
#2	6000.2	85118.	5069.2

Sample Name: 280-70339-B-17-A Acquired: 6/15/2015 18:08:02 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 280756 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0031	.00165	.00351	.27168	.95888	.00009	-0.00298	220.47	.00019
Stddev	.00023	.00068	.00223	.00072	.01337	.00004	.00148	3.36	.00014
%RSD	73.347	41.125	63.631	.26409	1.3947	50.275	49.754	1.5247	74.890
#1	-.00048	.00117	.00508	.27117	.96834	.00006	-.00193	222.85	.00009
#2	-.00015	.00213	.00193	.27218	.94942	.00012	-.00402	218.10	.00029

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0022	.00024	.00194	27.296	2.5261	.00955	41.657	.12558	.00230
Stddev	.00004	.00020	.00020	.382	.0561	.00106	.002	.00001	.00001
%RSD	15.912	85.376	10.406	1.3989	2.2196	11.048	.00429	.00636	.57482
#1	-.00020	.00009	.00208	27.566	2.5658	.01030	41.655	.12558	.00229
#2	-.00025	.00038	.00179	27.026	2.4865	.00881	41.658	.12557	.00231

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	59.747	.00396	.02778	-0.0201	.18085	-0.00157	-0.00492	11.323	-0.00122
Stddev	1.034	.00058	.00003	.00143	.00188	.00007	.00052	.197	.00031
%RSD	1.7301	14.552	.12015	71.213	1.0373	4.5799	10.524	1.7368	25.794
#1	60.478	.00356	.02776	-.00100	.18218	-.00152	-.00528	11.462	-.00100
#2	59.017	.00437	.02781	-.00302	.17952	-.00162	-.00455	11.184	-.00144

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51144	.00104	-0.00030	.00066	-0.03111	-0.00060	-0.00080	.00152
Stddev	.00733	.00140	.00028	.00043	.03461	.00041	.00045	.00204
%RSD	1.4339	134.70	94.416	65.782	111.25	68.573	56.014	134.44
#1	.51662	.00203	-.00010	.00097	-.05559	-.00031	-.00048	.00007
#2	.50625	.00005	-.00050	.00035	-.00664	-.00089	-.00112	.00296

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5734.8	80115.	5004.3
Stddev	11.6	113.	36.3
%RSD	.20147	.14137	.72549
#1	5726.7	80035.	4978.7
#2	5743.0	80195.	5030.0

Sample Name: 280-70339-B-17-ASD@5 Acquired: 6/15/2015 18:10:36 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 280756 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0047	.00097	.00250	.05494	.18899	.00013	.00275	43.334	.00010
Stddev	.00037	.00018	.00310	.00008	.00038	.00002	.00240	.029	.00015
%RSD	79.770	18.423	124.13	.14960	.20225	15.964	87.363	.06588	142.06

#1	-0.0020	.00109	.00469	.05499	.18926	.00015	.00105	43.354	.00021
#2	-0.00073	.00084	.00031	.05488	.18872	.00012	.00445	43.314	-0.00000

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00039	.00023	.00078	5.4239	.42482	.00441	8.4388	.02520	.00025
Stddev	.00004	.00003	.00009	.0075	.00069	.00230	.0021	.00008	.00020
%RSD	9.5377	12.033	11.507	.13758	.16345	52.102	.02474	.30087	81.331

#1	-0.0041	.00021	.00072	5.4292	.42433	.00279	8.4403	.02526	.00010
#2	-0.00036	.00025	.00085	5.4186	.42531	.00604	8.4373	.02515	.00039

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.980	.00082	.00701	-0.00156	.02874	-0.00160	.00081	2.1870	-0.00089
Stddev	.017	.00047	.00153	.00049	.00507	.00035	.00181	.0052	.00042
%RSD	.14038	57.415	21.745	31.464	17.627	22.131	224.35	.23675	47.140

#1	11.969	.00049	.00594	-0.00191	.02516	-0.00135	-0.00047	2.1906	-0.00059
#2	11.992	.00115	.00809	-0.00121	.03232	-0.00185	.00209	2.1833	-0.00118

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10116	.00134	-0.00006	-0.00003	-0.01829	-0.00049	-0.00251	.00099
Stddev	.00001	.00031	.00019	.00158	.01400	.00015	.00016	.00139
%RSD	.01006	23.396	292.70	4892.9	76.522	30.074	6.3291	140.69

#1	.10117	.00157	.00007	.00108	-.02819	-0.00038	-0.00240	.00001
#2	.10115	.00112	-0.00019	-0.00115	-0.00839	-0.00059	-0.00263	.00197

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5981.2	84141.	5133.8
Stddev	6.0	72.	6.3
%RSD	.10027	.08577	.12189

#1	5976.9	84090.	5138.2
#2	5985.4	84192.	5129.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05250	1.9535	1.0143	1.3024	3.1208	.05187	2.0451	267.31	.10444
Stddev	.00031	.0005	.0027	.0006	.0031	.00028	.0012	.55	.00017
%RSD	.59555	.02542	.26310	.04433	.09818	.54906	.05978	.20743	.16465

#1	.05272	1.9531	1.0162	1.3020	3.1230	.05167	2.0442	266.91	.10432
#2	.05228	1.9538	1.0124	1.3028	3.1186	.05207	2.0459	267.70	.10456

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49500	.20342	.26348	28.053	54.479	1.0944	91.601	.63272	1.0742
Stddev	.00016	.00029	.00099	.013	.128	.0005	.109	.00024	.0002
%RSD	.03257	.14053	.37632	.04611	.23539	.04908	.11906	.03836	.02122

#1	.49489	.20362	.26418	28.044	54.388	1.0948	91.678	.63289	1.0744
#2	.49512	.20322	.26278	28.062	54.569	1.0940	91.524	.63254	1.0741

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	113.05	.49593	10.809	.49478	2.2986	.51256	2.0343	21.642	2.0046
Stddev	.07	.00061	.006	.00127	.0048	.00104	.0048	.036	.0029
%RSD	.05798	.12266	.05159	.25604	.20787	.20251	.23807	.16555	.14653

#1	113.10	.49636	10.813	.49568	2.2952	.51183	2.0377	21.667	2.0067
#2	113.00	.49550	10.805	.49389	2.3019	.51330	2.0309	21.616	2.0025

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.5514	1.0099	1.0547	1.9121	2.0731	.51384	.50278	.55530
Stddev	.0000	.0018	.0003	.0017	.0073	.00082	.00001	.00119
%RSD	.00048	.17511	.03030	.09077	.35177	.15976	.00148	.21377

#1	1.5515	1.0086	1.0549	1.9133	2.0679	.51442	.50279	.55614
#2	1.5514	1.0111	1.0545	1.9109	2.0782	.51326	.50278	.55447

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5637.3	79060.	5091.1
Stddev	7.0	241.	5.2
%RSD	.12440	.30494	.10201

#1	5632.3	79231.	5094.8
#2	5642.2	78890.	5087.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05192	1.9421	1.0080	1.2878	3.0819	.05133	2.0259	262.88	.10354
Stddev	.00046	.0012	.0055	.0003	.0116	.00024	.0046	1.07	.00038
%RSD	.88183	.06318	.54877	.02488	.37548	.46639	.22830	.40618	.37003

#1	.05224	1.9429	1.0119	1.2881	3.0737	.05116	2.0227	262.12	.10381
#2	.05159	1.9412	1.0041	1.2876	3.0901	.05150	2.0292	263.63	.10327

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49076	.20196	.25978	27.353	53.983	1.0805	89.984	.62382	1.0673
Stddev	.00053	.00004	.00229	.069	.145	.0065	.680	.00527	.0010
%RSD	.10701	.02123	.88009	.25285	.26875	.60453	.75549	.84428	.09207

#1	.49039	.20193	.26139	27.304	53.881	1.0759	90.465	.62754	1.0666
#2	.49113	.20199	.25816	27.402	54.086	1.0852	89.503	.62010	1.0680

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	111.64	.49168	10.693	.49031	2.2674	.50778	2.0209	21.271	1.9915
Stddev	.17	.00031	.010	.00136	.0123	.00282	.0003	.069	.0015
%RSD	.14808	.06213	.09280	.27647	.54414	.55616	.01605	.32288	.07474

#1	111.76	.49147	10.686	.49127	2.2762	.50977	2.0207	21.222	1.9904
#2	111.53	.49190	10.700	.48935	2.2587	.50578	2.0211	21.319	1.9925

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.5305	.99794	1.0469	1.8959	2.0311	.50930	.49735	.55172
Stddev	.0046	.01542	.0080	.0009	.0044	.00369	.00224	.00223
%RSD	.29850	1.5449	.75918	.04951	.21612	.72496	.45053	.40428

#1	1.5273	1.0088	1.0525	1.8953	2.0280	.51191	.49894	.55014
#2	1.5338	.98704	1.0413	1.8966	2.0342	.50669	.49577	.55329

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5613.3	78718.	5026.8
Stddev	7.3	448.	36.1
%RSD	.12956	.56911	.71801

#1	5608.1	78401.	5052.3
#2	5618.4	79035.	5001.3

Sample Name: 280-70339-B-18-A Acquired: 6/15/2015 18:18:06 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 280756 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0047	.00316	.00366	.29642	.49239	.00003	-.00275	219.67	.00017
Stddev	.00025	.00026	.00145	.00042	.00085	.00002	.00116	.01	.00006
%RSD	54.160	8.2718	39.661	.14132	.17332	68.711	42.259	.00344	34.056
#1	-.00065	.00297	.00469	.29612	.49179	.00002	-.00358	219.66	.00013
#2	-.00029	.00334	.00263	.29671	.49300	.00005	-.00193	219.67	.00021

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00155	.00034	.00267	13.435	2.6495	.01041	54.787	.10237	.00204
Stddev	.00059	.00000	.00006	.017	.0507	.00001	.040	.00002	.00051
%RSD	38.169	1.2118	2.0669	.12768	1.9128	.11919	.07234	.01879	25.050
#1	.00196	.00034	.00263	13.422	2.6853	.01042	54.815	.10236	.00168
#2	.00113	.00034	.00271	13.447	2.6136	.01040	54.759	.10239	.00241

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	51.918	.00311	.23704	W -.00310	10.696	-.00011	.00372	11.499	-.00092
Stddev	.153	.00033	.00053	.00009	.015	.00134	.00031	.010	.00047
%RSD	.29535	10.647	.22416	2.9486	.13896	1186.6	8.3280	.08624	50.532
#1	52.027	.00334	.23666	-.00316	10.706	-.00106	.00350	11.506	-.00059
#2	51.810	.00287	.23741	-.00304	10.685	.00084	.00394	11.492	-.00125

Check ? Chk Pass Chk Pass Chk Pass Chk Warn Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit 10.000
 Low Limit -.00300

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.56430	.00307	.00078	.00163	-.04633	.00009	-.00049	.00234
Stddev	.00019	.00088	.00040	.00082	.03790	.00010	.00013	.00105
%RSD	.03310	28.506	52.126	50.201	81.797	110.10	26.546	45.002
#1	.56417	.00245	.00049	.00220	-.01953	.00002	-.00059	.00308
#2	.56443	.00369	.00106	.00105	-.07313	.00016	-.00040	.00159

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5710.0	80184.	5078.5
Stddev	1.5	130.	15.6
%RSD	.02638	.16179	.30731
#1	5711.1	80092.	5067.4
#2	5708.9	80276.	5089.5

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0070	50.674	-0.0202	.00633	-0.0020	.00001	1.0110	.02261	-0.00120	.00100	.00036	.01731	50.731
Stddev	.00023	.024	.00094	.00036	.00012	.00002	.0049	.00607	.00039	.00024	.00028	.00021	.048
%RSD	32.588	.04656	46.671	5.6447	57.391	268.68	.48704	26.839	32.004	23.992	78.985	1.2029	.09416

#1	-0.00086	50.658	-0.00269	.00658	-0.00012	.00003	1.0075	.01832	-0.00093	.00083	.00016	.01716	50.765
#2	-0.00054	50.691	-0.00136	.00608	-0.00028	-0.00001	1.0144	.02690	-0.00148	.00117	.00056	.01745	50.697

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04372	.00318	.00198	.00151	-0.00150	259.48	.00196	.00725	-0.00197	4.9716	.01249	.00031	-0.00068
Stddev	.03858	.00398	.00149	.00005	.00019	.62	.00023	.00106	.00012	.0320	.00057	.00317	.00881
%RSD	88.243	125.29	75.295	3.5792	12.379	.23736	11.667	14.654	6.1749	.64395	4.5645	1006.3	1301.1

#1	.07100	.00036	.00093	.00154	-0.00137	259.05	.00212	.00650	-0.00189	4.9489	.01289	.00255	-0.00691
#2	.01644	.00599	.00304	.00147	-0.00163	259.92	.00180	.00800	-0.00206	4.9942	.01209	-0.00192	.00555

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00068	.00053	4.8829	.00133	.00012	9.9312	.00145	-0.00094	.20568
Stddev	.00079	.00004	.0045	.00004	.00116	.0479	.00037	.00004	.00196
%RSD	114.99	8.0567	.09303	2.7525	948.78	.48219	25.542	4.7614	.95298

#1	.00013	.00050	4.8797	.00136	.00094	9.8974	.00119	-0.00091	.20429
#2	.00124	.00056	4.8861	.00130	-0.00070	9.9651	.00171	-0.00097	.20706

Check ?	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5798.4	80388.	5057.8
Stddev	7.5	152.	26.4
%RSD	.12988	.18911	.52107

#1	5803.7	80496.	5076.4
#2	5793.0	80281.	5039.1

Sample Name: ccv-3330457 Acquired: 6/15/2015 18:23:13 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50810	51210	96048	49429	52088	49068	-05166	4.9855	50212	49659	49378	49694	2.4420
Stddev	.00168	.00040	.00043	.00119	.00094	.00000	.00004	.0041	.00069	.00097	.00043	.00076	.0050
%RSD	.33031	.07732	.04507	.24171	.18089	.00020	.08275	.08237	.13733	.19437	.08764	.15274	.20289

#1	.50929	.51238	.96079	.49345	.52022	.49068	-.05163	4.9884	.50163	.49591	.49348	.49748	2.4385
#2	.50691	.51182	.96017	.49514	.52155	.49068	-.05169	4.9826	.50260	.49727	.49409	.49641	2.4455

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	48.742	1.0362	19.733	49662	49473	5.2520	49810	97343	1.0071	-00472	98612	96563	4.9526
Stddev	.082	.0078	.014	.00020	.00038	.0046	.00025	.00053	.0015	.00169	.00153	.00608	.0437
%RSD	.16909	.75486	.06916	.03929	.07580	.08671	.05053	.05405	.14743	35.740	.15524	.62920	.88211

#1	48.684	1.0306	19.743	.49649	.49500	5.2552	.49828	.97380	1.0081	-.00591	.98504	.96993	4.9218
#2	48.801	1.0417	19.724	.49676	.49447	5.2488	.49792	.97306	1.0060	-.00352	.98721	.96134	4.9835

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass								
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	98402	50307	01824	50462	1.0101	01982	48606	49473	49055
Stddev	.00133	.00033	.00071	.00089	.0006	.01738	.00049	.00097	.00109
%RSD	.13562	.06532	3.9163	.17628	.05508	87.674	.10030	.19665	.22126

#1	.98497	.50284	.01773	.50525	1.0105	.00753	.48640	.49542	.49131
#2	.98308	.50331	.01874	.50399	1.0097	.03211	.48571	.49404	.48978

Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5925.9	82994.	5080.3
Stddev	7.9	44.	2.9
%RSD	.13299	.05342	.05660

#1	5931.5	83025.	5082.3
#2	5920.3	82963.	5078.3

Sample Name: CCB Acquired: 6/15/2015 18:25:38 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0039	.00087	.00100	W .00259	-0.00051	.00014	.00231	.01281	.00034	-0.00017	-0.00000	.00033
Stddev	.00075	.00006	.00008	.00009	.00016	.00005	.00030	.00270	.00010	.00027	.00012	.00031
%RSD	195.07	6.7896	8.4545	3.5023	32.003	37.003	12.954	21.109	28.817	157.34	27671.	94.201

#1	-0.00092	.00091	.00106	.00265	-0.00040	.00010	.00210	.01089	.00041	-0.00036	-0.00008	.00054
#2	.00015	.00083	.00094	.00252	-0.00063	.00018	.00252	.01472	.00027	.00002	.00008	.00011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.00156								
Low Limit				-.00156								

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0069	-0.2897	.00119	.00500	.00001	.00150	.06310	-0.00000	.00075	-0.00012	-0.00443	-0.00152
Stddev	.00104	.00983	.00184	.00187	.00003	.00021	.00733	.00001	.00066	.00098	.00259	.00112
%RSD	151.65	33.932	155.12	37.289	241.68	14.257	11.616	1080.5	88.397	843.06	58.513	73.870

#1	-0.00142	-.03593	-0.00012	.00632	.00004	.00135	.06828	.00001	.00028	.00058	-0.00260	-0.00232
#2	.00005	-.02202	.00249	.00368	-0.00001	.00165	.05792	-0.00001	.00122	-0.00081	-0.00626	-0.00073

Check ?	Chk Pass	None	Chk Pass									
High Limit												
Low Limit												

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00154	.01616	-0.00047	.00013	.00033	.00043	-0.00160	-0.01704	-0.00052	-0.00338	.00167
Stddev	.00361	.01128	.00024	.00014	.00047	.00011	.00041	.00471	.00050	.00000	.00347
%RSD	233.87	69.782	50.067	112.04	139.17	26.494	25.573	27.651	95.998	.04673	207.44

#1	-0.00410	.00819	-0.00030	.00023	.00001	.00035	-0.00131	-.02037	-.00088	-0.00337	-0.00078
#2	.00101	.02413	-0.00064	.00003	.00066	.00051	-0.00189	-0.01371	-0.00017	-0.00338	.00413

Check ?	Chk Pass										
High Limit											
Low Limit											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5990.8	84678.	5045.9
Stddev	15.3	84.	9.6
%RSD	.25607	.09869	.19106

#1	6001.6	84737.	5039.1
#2	5979.9	84619.	5052.7

Sample Name: CCVL3330451 Acquired: 6/15/2015 18:28:18 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01016	.10935	.01545	.10194	.01078	.00110	W .12187	.22356	.00544	.01060	.01065	.01634
Stddev	.00100	.00010	.00218	.00013	.00050	.00011	.00119	.00169	.00013	.00022	.00012	.00026
%RSD	9.7975	.09523	14.080	.12832	4.6349	10.084	.97857	.75653	2.3407	2.0291	1.1395	1.5882

#1	.01087	.10928	.01391	.10203	.01042	.00102	.12103	.22237	.00553	.01045	.01073	.01652
#2	.00946	.10942	.01699	.10184	.01113	.00118	.12271	.22476	.00535	.01076	.01056	.01615

Check ?	Chk Pass	Chk Warn	Chk Pass									
Value							.10000					
Range							20.000%					

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10171	3.0460	F .01302	.21657	.01052	.02059	1.1497	.04237	2.9305	.00812	-.00427	W .00753
Stddev	.00159	.0774	.00102	.00094	.00003	.00014	.0040	.00012	.0058	.00036	.00056	.00065
%RSD	1.5646	2.5393	7.8200	.43324	.26709	.69938	.35113	.27843	.19913	4.4826	13.100	8.6133

#1	.10059	2.9913	.01374	.21723	.01050	.02070	1.1469	.04245	2.9346	.00838	-.00387	.00799
#2	.10284	3.1007	.01230	.21591	.01054	.02049	1.1526	.04228	2.9264	.00786	-.00466	.00707

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Warn						
Value			.01000									.01000
Range			30.000%									-20.000%

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .01028	.50944	.10409	.01064	.01576	.01038	.01660	.06273	.00930	.02013	F .01952
Stddev	.00108	.00658	.00093	.00004	.00112	.00025	.00133	.00937	.00011	.00009	.00021
%RSD	10.528	1.2917	.89182	.41563	7.0855	2.4289	8.0096	14.940	1.2325	.44375	1.0882

#1	.00952	.51409	.10343	.01067	.01497	.01020	.01754	.06936	.00939	.02006	.01967
#2	.01105	.50478	.10475	.01060	.01654	.01056	.01566	.05610	.00922	.02019	.01937

Check ?	Chk Fail	Chk Pass	Chk Fail								
Value	.01500										.01500
Range	-30.000%										30.000%

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6010.1	84875.	5045.0
Stddev	17.6	255.	3.8
%RSD	.29287	.29998	.07542

#1	5997.6	85055.	5047.7
#2	6022.5	84695.	5042.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00017	.00240	-.00067	.00171	-.00016	-.00001	.00200	.02684	.00018
Stddev	.00012	.00027	.00007	.00050	.00012	.00002	.00103	.00116	.00006
%RSD	68.040	11.264	10.438	29.534	75.273	311.85	51.779	4.3072	33.239

#1	.00009	.00221	-.00072	.00135	-.00024	.00001	.00273	.02602	.00023
#2	.00026	.00259	-.00062	.00207	-.00007	-.00002	.00127	.02765	.00014

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00036	-.00002	.00054	.00425	-.03506	.00112	.00333	.00014	.00030
Stddev	.00010	.00011	.00008	.00147	.02695	.00247	.00003	.00004	.00022
%RSD	26.712	557.99	14.274	34.540	76.860	220.69	.83353	29.000	71.387

#1	-.00029	-.00010	.00049	.00528	-.01601	-.00063	.00331	.00011	.00015
#2	-.00043	.00006	.00060	.00321	-.05412	.00286	.00335	.00017	.00046

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05522	.00028	.00034	-.00004	-.00343	-.00129	-.00246	.01296	-.00046
Stddev	.01241	.00003	.00214	.00050	.00170	.00061	.00240	.02969	.00103
%RSD	22.472	10.599	621.42	1357.1	49.580	47.246	97.823	229.09	222.65

#1	.06400	.00025	-.00117	-.00039	-.00464	-.00086	-.00416	.03396	.00027
#2	.04645	.00030	.00186	.00032	-.00223	-.00172	-.00076	-.00803	-.00119

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00001	.00113	.00061	-.00035	-.03160	-.00049	-.00161	.00337
Stddev	.00005	.00092	.00005	.00100	.00980	.00021	.00039	.00287
%RSD	476.83	81.145	7.9388	287.05	31.024	42.535	24.096	85.387

#1	-.00003	.00178	.00058	.00036	-.03853	-.00064	-.00189	.00540
#2	.00005	.00048	.00064	-.00105	-.02467	-.00034	-.00134	.00133

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6080.9	86176.	5117.8
Stddev	6.4	83.	12.4
%RSD	.10496	.09574	.24282

#1	6076.4	86117.	5126.6
#2	6085.4	86234.	5109.0

Sample Name: LCS 280-280464/2-A Acquired: 6/15/2015 18:33:34 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 280464 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05156	1.9863	.99379	1.0355	2.1613	.05108	2.0651	51.218	.10270
Stddev	.00005	.0024	.00248	.0030	.0076	.00039	.0017	.202	.00006
%RSD	.10018	.11848	.24988	.29400	.35377	.76659	.08176	.39506	.05412
#1	.05152	1.9846	.99203	1.0333	2.1667	.05136	2.0640	51.361	.10274
#2	.05159	1.9880	.99554	1.0376	2.1558	.05081	2.0663	51.075	.10266

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49890	.20208	.25919	1.0084	50.582	1.0669	49.965	.50715	1.0668
Stddev	.00044	.00059	.00050	.0040	.163	.0006	.028	.00022	.0009
%RSD	.08844	.29048	.19178	.39730	.32304	.05227	.05594	.04342	.08035
#1	.49858	.20167	.25884	1.0112	50.698	1.0665	49.946	.50699	1.0662
#2	.49921	.20250	.25955	1.0055	50.467	1.0673	49.985	.50730	1.0674

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	54.596	.49722	10.343	.50297	2.0377	.50816	2.0143	10.358	2.0354
Stddev	.606	.00052	.006	.00063	.0041	.00191	.0033	.001	.0077
%RSD	1.1097	.10527	.05740	.12457	.20256	.37583	.16284	.00738	.37987
#1	55.024	.49685	10.338	.50252	2.0348	.50681	2.0120	10.358	2.0300
#2	54.167	.49759	10.347	.50341	2.0406	.50952	2.0166	10.357	2.0409

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0397	.98703	1.0488	2.0075	2.0449	.50293	.50319	.55453
Stddev	.0032	.00303	.0003	.0056	.0379	.00127	.00185	.00179
%RSD	.30547	.30663	.02940	.27623	1.8550	.25259	.36740	.32306
#1	1.0420	.98489	1.0490	2.0036	2.0717	.50203	.50188	.55326
#2	1.0375	.98917	1.0486	2.0114	2.0180	.50383	.50449	.55579

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5860.0	82413.	5125.4
Stddev	11.7	42.	48.3
%RSD	.19981	.05096	.94330
#1	5868.3	82443.	5091.3
#2	5851.7	82384.	5159.6

Sample Name: 280-69969-C-1-A Acquired: 6/15/2015 18:35:59 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 280464 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0013	.00265	.01198	.01230	.05304	.00005	-0.00826	24.174	.00030
Stddev	.00017	.00021	.00047	.00064	.00016	.00005	.00245	.023	.00012
%RSD	135.16	7.9257	3.9522	5.2113	.30670	98.468	29.629	.09653	37.979
#1	-0.0024	.00280	.01164	.01275	.05293	.00009	-.00999	24.158	.00038
#2	-0.00001	.00250	.01231	.01185	.05316	.00002	-.00653	24.191	.00022

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00110	.00139	.00165	.02059	5.5576	.00916	9.1055	.00708	.00652
Stddev	.00022	.00006	.00009	.00024	.0028	.00212	.0067	.00001	.00046
%RSD	20.195	4.6501	5.2656	1.1476	.05017	23.116	.07375	.10057	7.0230
#1	-0.00126	.00144	.00172	.02042	5.5557	.00767	9.1008	.00709	.00620
#2	-0.00095	.00134	.00159	.02075	5.5596	.01066	9.1103	.00708	.00684

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.578	.00611	.04341	-0.00155	11.076	-0.00108	.00007	34.635	-0.00038
Stddev	.141	.00009	.00362	.00029	.004	.00054	.00277	.077	.00062
%RSD	.53208	1.5210	8.3476	18.485	.03371	50.423	4070.7	.22341	161.57
#1	26.678	.00617	.04597	-.00135	11.074	-.00146	-.00189	34.580	-.00082
#2	26.478	.00604	.04085	-.00175	11.079	-.00069	.00203	34.690	.00005

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.14058	.00226	.00057	.00067	-0.02977	.01343	-0.00206	.00009
Stddev	.00017	.00054	.00020	.00017	.01942	.00009	.00069	.00095
%RSD	.12204	23.659	35.671	26.083	65.245	.63905	33.450	1005.3
#1	.14046	.00189	.00072	.00079	-.01604	.01349	-.00255	-.00058
#2	.14070	.00264	.00043	.00054	-.04351	.01337	-.00157	.00077

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6019.4	84362.	5199.7
Stddev	3.7	82.	28.5
%RSD	.06082	.09765	.54744
#1	6022.0	84303.	5179.5
#2	6016.9	84420.	5219.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0053	.08042	.01286	.01099	.04984	.00006	-0.00869	22.895	.00010
Stddev	.00003	.00011	.00160	.00017	.00036	.00008	.00121	.053	.00018
%RSD	6.2409	.13364	12.476	1.5097	.73022	133.76	13.939	.23342	178.21

#1	-0.0050	.08034	.01399	.01088	.05010	.00000	-.00783	22.933	.00023
#2	-0.0055	.08049	.01172	.01111	.04958	.00011	-.00955	22.857	-.00003

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00110	.00092	.00183	.02862	5.2990	.00824	8.6089	.00632	.00464
Stddev	.00008	.00037	.00016	.00005	.0319	.00014	.0184	.00003	.00046
%RSD	7.1600	39.822	8.5692	.17318	.60099	1.6832	.21396	.45580	9.8207

#1	-0.0115	.00066	.00172	.02858	5.2765	.00814	8.5959	.00630	.00432
#2	-.00104	.00118	.00194	.02865	5.3215	.00834	8.6219	.00634	.00496

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.126	.00555	.04146	-0.00179	10.505	-0.00201	-0.00044	32.798	-0.00699
Stddev	.130	.00025	.00037	.00138	.006	.00005	.00051	.088	.00090
%RSD	.51709	4.5502	.90235	76.748	.05923	2.6929	116.95	.26687	129.30

#1	25.034	.00537	.04120	-.00276	10.501	-.00205	-.00080	32.736	-.00006
#2	25.218	.00573	.04173	-.00082	10.509	-.00197	-.00008	32.860	-.00133

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.13279	.00207	-0.00005	-0.00085	-0.00909	.01244	-0.00210	-0.00079
Stddev	.00025	.00003	.00031	.00091	.00483	.00012	.00018	.00055
%RSD	.18658	1.2369	638.67	106.95	53.155	.98859	8.5984	70.196

#1	.13296	.00205	-.00026	-.00021	-.00567	.01236	-.00222	-.00040
#2	.13261	.00208	.00017	-.00150	-.01250	.01253	-.00197	-.00118

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6010.3	84387.	5162.1
Stddev	5.5	73.	1.2
%RSD	.09096	.08602	.02345

#1	6006.4	84438.	5161.3
#2	6014.2	84335.	5163.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0020	.00356	.00033	.00190	-0.0020	.00006	.00143	.01574	.00017
Stddev	.00002	.00008	.00151	.00007	.00044	.00006	.00103	.00921	.00007
%RSD	8.5529	2.1675	449.71	3.9304	217.18	102.15	72.278	58.510	38.898

#1	-0.0021	.00351	-0.0073	.00196	.00011	.00010	.00070	.02225	.00012
#2	-0.0019	.00362	.00140	.00185	-0.00051	.00002	.00215	.00923	.00022

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0015	.00024	.00116	.00209	.02620	.00120	.00349	.00011	.00086
Stddev	.00003	.00003	.00001	.00233	.05206	.00160	.00256	.00003	.00027
%RSD	19.701	12.908	.83556	111.65	198.71	133.81	73.277	25.769	31.395

#1	-0.0017	.00026	.00115	.00044	-.01061	.00233	.00168	.00009	.00067
#2	-0.0013	.00022	.00117	.00374	.06301	.00006	.00529	.00013	.00105

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.13141	.00031	.00358	-0.00155	.00624	-0.00059	-0.00189	.03025	-0.00049
Stddev	.01014	.00028	.00270	.00029	.00151	.00137	.00460	.00561	.00003
%RSD	7.7185	90.846	75.429	18.953	24.243	232.95	243.95	18.532	5.6599

#1	.13858	.00051	.00548	-.00135	.00517	-.00155	.00137	.02629	-.00051
#2	.12424	.00011	.00167	-.00176	.00731	.00038	-.00514	.03422	-.00047

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00003	-0.00039	.00008	-0.00170	-0.01319	-0.00065	-0.00260	.00171
Stddev	.00006	.00055	.00007	.00042	.00898	.00043	.00041	.00030
%RSD	190.30	141.36	83.564	24.735	68.073	66.276	15.669	17.738

#1	-0.0001	-0.0077	.00003	-.00200	-.00684	-.00096	-.00289	.00150
#2	.00008	-0.00000	.00012	-.00141	-.01953	-.00035	-.00231	.00193

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6134.2	86639.	5179.8
Stddev	8.7	13.	3.8
%RSD	.14209	.01485	.07304

#1	6140.3	86648.	5177.1
#2	6128.0	86629.	5182.5

Sample Name: 280-70195-F-1-D Acquired: 6/15/2015 18:43:53 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 280464 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0108	.00228	.00056	.03011	.02111	.00008	-0.00743	100.45	.00028
Stddev	.00023	.00050	.00572	.00008	.00009	.00002	.00170	.05	.00021
%RSD	21.596	21.872	1029.8	.27289	.42358	19.199	22.826	.05136	74.447

#1	-0.0125	.00193	-.00349	.03005	.02117	.00007	-.00862	100.49	.00013
#2	-0.0092	.00263	.00460	.03017	.02104	.00009	-.00623	100.42	.00043

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00065	.00416	.00196	.00319	7.1769	.01457	39.342	.00013	.00128
Stddev	.00004	.00011	.00018	.00187	.0309	.00147	.079	.00002	.00013
%RSD	5.6599	2.6958	9.0376	58.671	.43012	10.067	.20204	18.729	10.254

#1	-0.0067	.00408	.00183	.00186	7.1987	.01561	39.398	.00015	.00119
#2	-0.0062	.00424	.00208	.00451	7.1550	.01354	39.286	.00011	.00137

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	39.930	.00092	.05417	-0.00260	8.1726	-0.00122	-0.00276	27.408	-0.00123
Stddev	.265	.00001	.00015	.00100	.0058	.00241	.00352	.037	.00147
%RSD	.66293	1.3074	.27481	38.632	.07107	197.70	127.66	.13326	119.65

#1	39.743	.00091	.05427	-.00331	8.1767	-.00292	-.00525	27.382	-.00227
#2	40.117	.00093	.05406	-.00189	8.1685	.00049	-.00027	27.433	-.00019

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.58358	.00232	.00038	.00146	.01288	.01446	-0.00229	.00093
Stddev	.00013	.00008	.00002	.00027	.01526	.00040	.00039	.00191
%RSD	.02177	3.2375	5.5104	18.115	118.49	2.7741	17.116	205.14

#1	.58367	.00227	.00039	.00128	.02367	.01474	-.00201	.00229
#2	.58349	.00237	.00036	.00165	.00209	.01417	-.00256	-.00042

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5872.1	82167.	5125.7
Stddev	4.2	189.	14.9
%RSD	.07197	.23007	.29159

#1	5869.1	82301.	5136.3
#2	5875.1	82033.	5115.2

Sample Name: 280-70195-E-2-A Acquired: 6/15/2015 18:46:30 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 280464 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0018	.00169	.00318	.02857	.02060	.00007	-0.00769	94.497	.00054
Stddev	.00042	.00075	.00056	.00011	.00002	.00007	.00169	.113	.00005
%RSD	231.38	44.225	17.717	.37724	.08776	113.30	22.003	.11956	8.7464

#1	.00011	.00222	.00358	.02865	.02062	.00001	-.00650	94.577	.00057
#2	-.00048	.00116	.00279	.02850	.02059	.00012	-.00889	94.417	.00051

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00061	.00406	.00194	.11834	6.6924	.01336	36.716	.00100	.00112
Stddev	.00006	.00013	.00059	.00150	.0347	.00286	.001	.00001	.00001
%RSD	10.264	3.0860	30.212	1.2703	.51909	21.386	.00351	.58706	.66151

#1	-.00065	.00415	.00152	.11728	6.7170	.01134	36.717	.00100	.00112
#2	-.00056	.00397	.00235	.11941	6.6678	.01538	36.715	.00099	.00111

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	37.768	.00129	.04981	-0.00201	7.5995	-0.00122	-0.00258	25.754	-0.00070
Stddev	.141	.00016	.00122	.00031	.0083	.00042	.00458	.069	.00068
%RSD	.37201	12.034	2.4418	15.627	.10947	34.780	177.50	.26658	96.944

#1	37.867	.00140	.05067	-.00179	7.5937	-.00092	.00066	25.803	-.00022
#2	37.668	.00118	.04895	-.00223	7.6054	-.00151	-.00582	25.706	-.00118

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.54911	.00214	.00002	-0.00085	-0.01477	.01400	-0.00030	.00029
Stddev	.00010	.00026	.00047	.00058	.02534	.00012	.00021	.00166
%RSD	.01842	12.087	3047.5	68.773	171.60	.87116	70.357	581.02

#1	.54918	.00233	.00035	-.00126	.00315	.01409	-.00044	-.00089
#2	.54904	.00196	-.00032	-.00044	-.03268	.01392	-.00015	.00146

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5832.2	81896.	5082.1
Stddev	1.9	112.	33.3
%RSD	.03233	.13679	.65601

#1	5830.8	81817.	5058.5
#2	5833.5	81976.	5105.7

Sample Name: 280-70195-E-2-A SD@5 Acquired: 6/15/2015 18:49:06 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 280464 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0084	.00289	.00075	.00619	.00385	.00013	.00095	18.604	.00026
Stddev	.00043	.00005	.00058	.00017	.00012	.00013	.00367	.007	.00015
%RSD	51.611	1.5930	77.966	2.7809	3.1978	94.411	385.24	.03663	56.351
#1	-0.0053	.00286	.00116	.00607	.00394	.00004	.00355	18.609	.00037
#2	-0.0115	.00293	.00034	.00632	.00377	.00022	-.00164	18.599	.00016

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0022	.00092	.00081	-0.0020	1.2923	.00714	7.4737	-0.0001	.00045
Stddev	.00019	.00012	.00061	.00217	.0118	.00450	.0086	.00005	.00021
%RSD	89.131	12.840	75.157	107.59	.91490	62.936	.11510	509.95	47.073
#1	-0.0035	.00101	.00124	-0.00355	1.2839	.00396	7.4798	-0.0004	.00030
#2	-0.0008	.00084	.00038	-0.00048	1.3007	.01032	7.4676	.00002	.00060

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.2564	.00027	.00832	-0.00108	1.4750	-0.00108	-0.00139	5.0529	-0.00095
Stddev	.0037	.00004	.00126	.00013	.0004	.00224	.00007	.0099	.00117
%RSD	.05126	16.921	15.192	12.108	.02398	207.25	5.0906	.19547	123.36
#1	7.2538	.00023	.00922	-0.00098	1.4748	.00050	-.00134	5.0460	-.00178
#2	7.2590	.00030	.00743	-0.00117	1.4753	-.00266	-.00144	5.0599	-.00012

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10947	.00257	.00015	-0.00029	.00869	.00199	-0.00269	-0.00094
Stddev	.00021	.00046	.00012	.00130	.03022	.00025	.00017	.00201
%RSD	.19294	17.937	75.136	439.99	347.96	12.709	6.1956	213.43
#1	.10962	.00290	.00024	.00062	-.01269	.00181	-.00257	.00048
#2	.10932	.00224	.00007	-.00121	.03006	.00217	-.00280	-.00237

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6001.2	84444.	5112.8
Stddev	1.0	14.	6.7
%RSD	.01685	.01659	.13048
#1	6001.9	84454.	5108.1
#2	6000.5	84434.	5117.5

Sample Name: 280-70195-E-2-B MS Acquired: 6/15/2015 18:51:46 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 280464 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05195	1.9389	.98883	1.0431	2.1753	.05105	2.0127	147.04	.10260
Stddev	.00007	.0008	.00105	.0010	.0015	.00016	.0068	.00	.00053
%RSD	.13819	.03944	.10619	.10040	.06804	.31878	.33587	.00235	.51960

#1	.05200	1.9384	.98809	1.0423	2.1742	.05094	2.0080	147.04	.10222
#2	.05190	1.9394	.98957	1.0438	2.1763	.05117	2.0175	147.05	.10297

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48740	.20376	.25671	.99700	57.742	1.0822	86.978	.50033	1.0520
Stddev	.00079	.00016	.00021	.00191	.046	.0007	.025	.00009	.0018
%RSD	.16260	.07656	.08274	.19186	.07983	.06524	.02929	.01798	.16687

#1	.48796	.20387	.25656	.99565	57.709	1.0817	86.996	.50040	1.0532
#2	.48684	.20365	.25686	.99835	57.775	1.0827	86.960	.50027	1.0507

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	91.542	.48652	10.411	.48835	10.044	.50166	1.9880	36.683	1.9933
Stddev	.192	.00063	.001	.00097	.002	.00108	.0016	.018	.0066
%RSD	.20992	.12937	.00489	.19901	.01952	.21565	.08271	.04784	.32936

#1	91.406	.48696	10.411	.48766	10.046	.50089	1.9892	36.670	1.9980
#2	91.678	.48607	10.410	.48904	10.043	.50242	1.9869	36.695	1.9887

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.5964	.97980	1.0390	1.8868	2.0452	.51634	.49825	.54865
Stddev	.0003	.00231	.0007	.0046	.0284	.00084	.00015	.00526
%RSD	.01778	.23565	.06371	.24304	1.3867	.16263	.03039	.95848

#1	1.5962	.98143	1.0395	1.8901	2.0252	.51574	.49836	.54493
#2	1.5966	.97816	1.0386	1.8836	2.0653	.51693	.49814	.55237

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5718.2	80148.	5038.8
Stddev	7.0	27.	14.4
%RSD	.12168	.03412	.28527

#1	5713.3	80167.	5028.6
#2	5723.1	80128.	5048.9

Sample Name: 280-70195-E-2-C MSD Acquired: 6/15/2015 18:54:09 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 280464 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05109	1.9489	.99106	1.0483	2.1673	.05118	2.0134	145.81	.10241
Stddev	.00006	.0037	.00301	.0000	.0050	.00020	.0006	.07	.00014
%RSD	.11494	.19040	.30336	.00256	.23112	.39068	.02885	.04686	.14150

#1	.05105	1.9463	.98894	1.0483	2.1709	.05132	2.0130	145.86	.10251
#2	.05113	1.9515	.99319	1.0484	2.1638	.05104	2.0138	145.76	.10230

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48676	.20387	.25807	1.0342	57.544	1.0784	86.788	.50118	1.0546
Stddev	.00056	.00002	.00027	.0021	.092	.0016	.040	.00032	.0011
%RSD	.11544	.00780	.10534	.20593	.15981	.14671	.04620	.06345	.10048

#1	.48636	.20388	.25826	1.0357	57.609	1.0773	86.817	.50140	1.0539
#2	.48715	.20386	.25787	1.0327	57.479	1.0795	86.760	.50095	1.0554

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	91.074	.48604	10.420	.48766	10.018	.50207	1.9911	36.280	1.9924
Stddev	.124	.00016	.008	.00225	.021	.00128	.0055	.024	.0032
%RSD	.13613	.03294	.07699	.46226	.20758	.25462	.27599	.06729	.15993

#1	90.986	.48592	10.415	.48925	10.033	.50117	1.9949	36.263	1.9902
#2	91.162	.48615	10.426	.48606	10.004	.50298	1.9872	36.297	1.9947

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.5857	.98560	1.0423	1.8898	2.0378	.51656	.49965	.54606
Stddev	.0028	.00265	.0002	.0047	.0217	.00248	.00072	.00272
%RSD	.17931	.26855	.02209	.24883	1.0648	.48015	.14385	.49733

#1	1.5877	.98373	1.0421	1.8865	2.0225	.51481	.50015	.54798
#2	1.5837	.98747	1.0424	1.8932	2.0532	.51832	.49914	.54414

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5733.4	80045.	5094.6
Stddev	8.4	179.	19.7
%RSD	.14645	.22390	.38651

#1	5739.4	80172.	5108.6
#2	5727.5	79918.	5080.7

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0057	50.710	-0.00237	.00614	.00039	.00001	1.0008	.01574	-0.00132	.00132	.00051	.01753	50.773
Stddev	.00003	.067	.00283	.00024	.00016	.00006	.0016	.00070	.00002	.00007	.00003	.00047	.112
%RSD	5.0310	.13236	119.21	3.9599	41.273	617.82	.16096	4.4244	1.4166	5.2818	5.7788	2.6851	.22141

#1	-0.0055	50.757	-0.00437	.00631	.00050	-0.00003	.99964	.01624	-0.00134	.00137	.00053	.01787	50.852
#2	-0.0059	50.662	-0.00037	.00597	.00027	.00006	1.0019	.01525	-0.00131	.00127	.00049	.01720	50.693

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08811	.00400	.00375	.00150	.00040	258.60	.00187	.00487	-0.00165	4.9664	.01407	.00849	.02186
Stddev	.00554	.00165	.00229	.00003	.00049	.23	.00029	.00144	.00088	.0281	.00123	.00386	.01706
%RSD	6.2882	41.135	60.959	2.0660	120.75	.09017	15.428	29.606	53.199	.56491	8.7184	45.473	78.046

#1	.08419	.00284	.00537	.00152	.00006	258.76	.00207	.00588	-0.00103	4.9465	.01494	.01122	.00980
#2	.09203	.00516	.00213	.00148	.00075	258.44	.00166	.00385	-0.00227	4.9862	.01321	.00576	.03393

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00010	.00051	4.8596	.00215	.00114	9.9102	.00162	-0.00074	.20590
Stddev	.00104	.00002	.0070	.00041	.00099	.0087	.00001	.00014	.00021
%RSD	1051.1	3.4337	.14406	19.031	86.766	.08783	.34254	18.685	.10249

#1	-0.0064	.00050	4.8547	.00244	.00183	9.9164	.00162	-0.00065	.20576
#2	.00083	.00052	4.8646	.00186	.00044	9.9041	.00162	-0.00084	.20605

Check ?	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5817.1	80590.	5068.1
Stddev	8.8	82.	2.9
%RSD	.15166	.10221	.05799

#1	5823.3	80648.	5066.0
#2	5810.9	80532.	5070.2

Sample Name: ccv-3330457 Acquired: 6/15/2015 18:59:05 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51850	.52236	.98870	.50563	.53979	.50498	-.05069	5.1245	.51437	.50967	.50651	.51051	2.5139
Stddev	.00036	.00040	.00010	.00078	.00231	.00024	.00338	.0216	.00079	.00065	.00035	.00017	.0008
%RSD	.06914	.07565	.01054	.15357	.42711	.04703	6.6758	.42064	.15423	.12730	.06940	.03292	.03068

#1	.51825	.52264	.98863	.50618	.54142	.50514	-.04830	5.1397	.51493	.50922	.50626	.51039	2.5144
#2	.51875	.52208	.98878	.50509	.53816	.50481	-.05308	5.1092	.51381	.51013	.50676	.51062	2.5133

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.050	1.0707	20.032	.50674	.50832	5.4317	.51030	1.0031	1.0304	-.00309	1.0111	.98925	5.1088
Stddev	.085	.0053	.043	.00014	.00102	.0161	.00054	.0039	.0023	.00066	.0020	.00592	.0021
%RSD	.16960	.49759	.21275	.02792	.19978	.29687	.10574	.38872	.21885	21.527	.19382	.59808	.04151

#1	50.110	1.0745	20.002	.50664	.50904	5.4431	.50992	1.0058	1.0288	-.00356	1.0125	.99344	5.1103
#2	49.990	1.0669	20.062	.50684	.50760	5.4203	.51068	1.0003	1.0320	-.00262	1.0097	.98507	5.1073

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass								
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0035	.51979	.01862	.51767	1.0359	.03514	.49524	.50330	.50758
Stddev	.0006	.00119	.00121	.00138	.0023	.01259	.00058	.00161	.00251
%RSD	.05432	.22870	6.4754	.26689	.22569	35.835	.11757	.31940	.49485

#1	1.0031	.52063	.01947	.51865	1.0375	.04404	.49483	.50216	.50580
#2	1.0039	.51895	.01777	.51669	1.0342	.02624	.49565	.50444	.50935

Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5983.5	83998.	5089.1
Stddev	.1	236.	42.4
%RSD	.00133	.28112	.83281

#1	5983.5	84165.	5059.1
#2	5983.4	83831.	5119.0

Sample Name: CCB Acquired: 6/15/2015 19:01:31 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0023	.00008	.00154	W .00232	-0.0039	.00017	.00241	.00703	-0.00010	-0.00001	.00026	.00043
Stddev	.00006	.00038	.00154	.00019	.00022	.00005	.00164	.00939	.00007	.00016	.00008	.00038
%RSD	26.970	451.45	99.864	8.2135	56.386	28.861	67.828	133.57	77.055	1724.7	31.542	86.903

#1	-0.0019	.00036	.00263	.00245	-0.00054	.00013	.00126	.01366	-0.00004	-0.00013	.00020	.00070
#2	-0.00028	-0.00019	.00045	.00218	-0.00023	.00020	.00357	.00039	-0.00015	.00011	.00031	.00017

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.00156								
Low Limit				-.00156								

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01048	-.04624	.00093	.00026	.00009	.00130	.05048	-0.00007	.00204	-0.00157	-.00422	-.00177
Stddev	.00012	.01624	.00014	.00204	.00000	.00035	.00037	.00013	.00101	.00107	.00283	.00215
%RSD	1.1673	35.126	15.318	794.04	1.7891	26.841	.73041	191.58	49.404	67.771	66.938	121.54

#1	.01057	-.05772	.00083	.00170	.00009	.00105	.05022	-0.00016	.00275	-0.00233	-.00622	-.00329
#2	.01040	-.03475	.00103	-.00119	.00009	.00154	.05074	.00002	.00133	-0.00082	-.00222	-.00025

Check ?	Chk Pass	None	Chk Pass									
High Limit												
Low Limit												

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00029	.02067	-0.00040	.00007	.00275	.00052	-0.00095	-0.03782	-0.00061	-0.00308	W .00327
Stddev	.00277	.00602	.00015	.00001	.00174	.00026	.00031	.00090	.00038	.00038	.00007
%RSD	963.27	29.136	36.319	16.620	63.244	50.157	32.315	2.3843	62.842	12.334	2.2805

#1	-0.00224	.01641	-0.00030	.00008	.00398	.00071	-0.00073	-.03846	-0.00088	-0.00335	.00333
#2	.00167	.02493	-0.00050	.00006	.00152	.00034	-0.00116	-.03718	-0.00034	-0.00281	.00322

Check ?	Chk Pass	Chk Warn										
High Limit											.00238	
Low Limit											-.00238	

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6013.1	85900.	5073.8
Stddev	4.5	640.	7.1
%RSD	.07511	.74527	.13897

#1	6009.9	86353.	5068.8
#2	6016.3	85447.	5078.7

Sample Name: CCVL3330451 Acquired: 6/15/2015 19:04:11 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00962	.10893	.01452	.10160	.01058	.00100	W .12089	.22376	.00529	.01037	.01040	.01591
Stddev	.00024	.00126	.00097	.00058	.00035	.00007	.00354	.00559	.00015	.00040	.00016	.00008
%RSD	2.4597	1.1526	6.7020	.57567	3.3006	6.8474	2.9281	2.4972	2.8044	3.8541	1.5768	.53278

#1	.00979	.10982	.01383	.10202	.01034	.00095	.11839	.21981	.00539	.01065	.01052	.01585
#2	.00945	.10804	.01521	.10119	.01083	.00105	.12339	.22771	.00518	.01009	.01029	.01597

Check ?	Chk Pass	Chk Warn	Chk Pass									
Value							.10000					
Range							20.000%					

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10389	2.9993	F .01342	.21834	.01064	.02055	1.1506	.04230	2.9382	.00893	-.00902	.00854
Stddev	.00029	.0297	.00217	.00156	.00008	.00001	.0075	.00029	.0058	.00141	.00530	.00229
%RSD	.28046	.98922	16.189	.71363	.73344	.05610	.65495	.68797	.19674	15.832	58.775	26.843

#1	.10410	2.9783	.01188	.21723	.01059	.02055	1.1560	.04210	2.9423	.00993	-.01277	.01016
#2	.10369	3.0203	.01495	.21944	.01070	.02056	1.1453	.04251	2.9341	.00793	-.00527	.00692

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass						
Value			.01000									
Range			30.000%									

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01354	.51109	.10287	.01063	.01551	.01021	.01590	W .07678	.00942	.02018	F .02068
Stddev	.00828	.01058	.00010	.00010	.00094	.00027	.00015	.02107	.00021	.00064	.00119
%RSD	61.166	2.0708	.09240	.91027	6.0595	2.6698	.97321	27.439	2.2241	3.1536	5.7761

#1	.01940	.51857	.10294	.01056	.01485	.01041	.01579	.06188	.00957	.01973	.01984
#2	.00768	.50360	.10280	.01069	.01618	.01002	.01601	.09168	.00927	.02063	.02153

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Fail						
Value								.06000			.01500
Range								20.000%			30.000%

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6044.0	85115.	5079.4
Stddev	23.5	49.	9.1
%RSD	.38812	.05741	.17932

#1	6027.4	85149.	5073.0
#2	6060.6	85080.	5085.8

Sample Name: 280-70195-F-3-B Acquired: 6/15/2015 19:06:47 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 280464 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0012	.00247	.00100	.02952	.00795	.00008	-0.00366	47.422	.00021
Stddev	.00021	.00040	.00104	.00052	.00005	.00006	.00201	.030	.00019
%RSD	177.45	16.273	103.65	1.7449	.66739	73.543	54.914	.06268	92.131

#1	-0.0026	.00276	.00027	.02988	.00799	.00012	-.00509	47.401	.00007
#2	.00003	.00219	.00174	.02915	.00791	.00004	-.00224	47.444	.00034

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00073	.00183	.00119	.00495	6.9084	.01194	23.165	.00015	.00441
Stddev	.00004	.00023	.00040	.00025	.0276	.00038	.019	.00004	.00036
%RSD	5.0834	12.451	33.430	5.0255	.39928	3.1473	.08155	26.603	8.1655

#1	-0.00070	.00167	.00091	.00478	6.9279	.01221	23.178	.00018	.00416
#2	-0.00076	.00199	.00148	.00513	6.8889	.01167	23.151	.00012	.00467

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	20.095	.00116	.02166	-0.00163	8.1326	-0.00096	-0.00346	26.154	-0.00179
Stddev	.514	.00028	.00416	.00054	.0047	.00070	.00307	.100	.00053
%RSD	2.5594	23.690	19.213	33.279	.05841	72.850	88.732	.38324	29.600

#1	20.459	.00097	.01871	-.00201	8.1359	-.00046	-.00563	26.083	-.00142
#2	19.732	.00136	.02460	-.00125	8.1292	-.00145	-.00129	26.225	-.00217

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.24742	.00235	.00040	-0.00056	-0.02814	.02958	-0.00242	.00158
Stddev	.00031	.00035	.00012	.00057	.00258	.00025	.00015	.00066
%RSD	.12442	14.749	28.923	102.57	9.1848	.84785	6.4083	41.578

#1	.24720	.00260	.00048	-.00015	-.02632	.02976	-.00252	.00205
#2	.24764	.00211	.00032	-.00096	-.02997	.02941	-.00231	.00112

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5925.0	82781.	5080.6
Stddev	10.2	142.	10.9
%RSD	.17161	.17129	.21411

#1	5917.8	82681.	5088.3
#2	5932.2	82881.	5072.9

Sample Name: 280-70195-E-4-A Acquired: 6/15/2015 19:09:22 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 280464 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00026	.02389	-.00091	.00263	-.00040	-.00005	.00040	.01765	.00010
Stddev	.00065	.00010	.00212	.00006	.00008	.00004	.00089	.00059	.00006
%RSD	245.48	.42070	233.57	2.4527	18.997	66.433	221.21	3.3367	59.849
#1	-.00019	.02382	-.00240	.00259	-.00035	-.00003	-.00023	.01807	.00006
#2	.00072	.02396	.00059	.00268	-.00046	-.00008	.00104	.01724	.00014

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	.00018	.00042	.00339	-.08419	.00513	.00709	.00017	.00118
Stddev	.00001	.00002	.00033	.00138	.04854	.00043	.00116	.00005	.00010
%RSD	7.6753	10.605	78.387	40.752	57.663	8.2994	16.382	28.753	8.2599
#1	-.00009	.00017	.00065	.00437	-.11851	.00543	.00627	.00014	.00111
#2	-.00008	.00020	.00019	.00241	-.04986	.00483	.00791	.00020	.00125

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09532	-.00009	.00602	-.00152	.00135	-.00098	-.00134	.03342	-.00053
Stddev	.00017	.00004	.00286	.00075	.00341	.00239	.00116	.00237	.00053
%RSD	.17636	46.797	47.516	49.129	253.33	243.62	86.194	7.1051	99.863
#1	.09543	-.00006	.00400	-.00205	-.00107	.00071	-.00052	.03510	-.00090
#2	.09520	-.00012	.00805	-.00099	.00376	-.00267	-.00216	.03174	-.00015

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00015	.00086	.00018	-.00154	-.02033	-.00055	-.00259	.00047
Stddev	.00010	.00025	.00023	.00005	.03389	.00006	.00014	.00203
%RSD	67.457	28.906	125.20	3.2500	166.67	10.804	5.5200	435.05
#1	.00008	.00068	.00034	-.00151	.00363	-.00050	-.00269	.00190
#2	.00022	.00103	.00002	-.00158	-.04429	-.00059	-.00249	-.00097

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6066.7	85928.	5073.6
Stddev	.6	158.	42.5
%RSD	.00967	.18433	.83681
#1	6067.1	85816.	5043.6
#2	6066.3	86040.	5103.7

Sample Name: 280-70195-F-5-B Acquired: 6/15/2015 19:12:01 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 280464 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0091	.00403	.00463	.02594	.00898	.00006	-0.00453	37.412	.00021
Stddev	.00013	.00095	.00166	.00038	.00019	.00001	.00045	.046	.00010
%RSD	14.307	23.452	35.946	1.4692	2.1597	12.854	10.009	.12265	44.411

#1	-0.0082	.00336	.00580	.02567	.00911	.00006	-.00421	37.380	.00028
#2	-0.0101	.00470	.00345	.02621	.00884	.00005	-.00485	37.444	.00015

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0082	.00471	.00111	.00406	5.6142	.01385	18.698	.00019	.00744
Stddev	.00006	.00005	.00057	.00269	.0172	.00017	.000	.00004	.00042
%RSD	7.3718	1.1232	51.035	66.282	.30695	1.1987	.00005	20.465	5.6594

#1	-0.0078	.00475	.00151	.00596	5.6264	.01396	18.698	.00022	.00714
#2	-0.0086	.00467	.00071	.00216	5.6020	.01373	18.698	.00017	.00774

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.016	.00099	.20730	-0.0127	6.6168	-0.00261	-0.00200	27.841	-0.00127
Stddev	.011	.00013	.00004	.00043	.0129	.00073	.00016	.021	.00047
%RSD	.04206	13.002	.01943	34.273	.19444	27.769	7.9607	.07531	37.008

#1	26.024	.00108	.20727	-.00158	6.6259	-.00313	-.00211	27.856	-.00093
#2	26.008	.00090	.20732	-.00096	6.6077	-.00210	-.00188	27.826	-.00160

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.20808	.00031	.00029	.00010	.02021	.03772	-0.00218	-0.00029
Stddev	.00068	.00079	.00039	.00062	.02624	.00044	.00028	.00334
%RSD	.32825	251.02	133.12	605.39	129.82	1.1642	12.627	1166.1

#1	.20760	.00087	.00056	-.00034	.00166	.03803	-.00199	-.00265
#2	.20856	-.00024	.00002	.00054	.03877	.03741	-.00238	.00208

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5936.6	83204.	5085.3
Stddev	3.6	27.	4.8
%RSD	.06014	.03289	.09342

#1	5934.0	83185.	5088.7
#2	5939.1	83223.	5082.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0059	.00310	-0.0026	.02847	.00926	.00008	-0.00420	54.245	.00038
Stddev	.00012	.00053	.00077	.00086	.00034	.00001	.00347	.087	.00000
%RSD	19.625	17.241	300.95	3.0320	3.6228	6.3166	82.634	.16063	1.1786

#1	-0.0051	.00348	-0.0080	.02908	.00949	.00008	-0.00665	54.183	.00038
#2	-0.0068	.00272	.00029	.02786	.00902	.00009	-0.00175	54.306	.00038

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0059	.00433	.00159	.00841	6.8756	.01481	25.262	.00035	.00431
Stddev	.00021	.00019	.00055	.00140	.0450	.00282	.044	.00002	.00046
%RSD	36.005	4.3710	34.459	16.614	.65416	19.018	.17431	5.2788	10.713

#1	-0.0074	.00420	.00120	.00742	6.8438	.01282	25.230	.00036	.00398
#2	-0.0044	.00446	.00198	.00940	6.9075	.01680	25.293	.00034	.00464

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	21.586	.00107	.04537	-0.00239	8.1269	-0.00116	-0.00370	26.011	-0.00136
Stddev	.206	.00004	.00067	.00018	.0021	.00032	.00090	.105	.00019
%RSD	.95621	3.6661	1.4761	7.4222	.02594	27.728	24.209	.40188	13.814

#1	21.440	.00110	.04584	-0.00227	8.1254	-0.00139	-0.00434	25.937	-0.00149
#2	21.732	.00104	.04489	-0.00252	8.1284	-0.00093	-0.00307	26.085	-0.00122

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.31879	.00084	-0.00000	.00034	-0.01068	.02664	.00255	.00194
Stddev	.00073	.00079	.00010	.00143	.03539	.00101	.00057	.00040
%RSD	.22932	93.779	10747.	425.92	331.50	3.7979	22.413	20.894

#1	.31827	.00028	.00007	-0.00068	.01435	.02593	.00296	.00165
#2	.31930	.00139	-0.00007	.00135	-0.03570	.02736	.00215	.00222

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5956.6	82835.	5060.6
Stddev	4.2	223.	3.2
%RSD	.07013	.26874	.06287

#1	5959.5	82992.	5062.9
#2	5953.6	82677.	5058.4

Sample Name: 280-70195-F-7-B Acquired: 6/15/2015 19:17:18 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 280464 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00001	.00166	.00156	.02290	.01266	.00014	-.00695	41.674	.00033
Stddev	.00008	.00007	.00123	.00034	.00003	.00004	.00003	.011	.00023
%RSD	1263.1	3.9815	78.828	1.4855	.23936	25.539	.47944	.02573	68.549
#1	.00006	.00161	.00069	.02314	.01264	.00012	-.00697	41.681	.00050
#2	-.00005	.00171	.00243	.02266	.01269	.00017	-.00692	41.666	.00017

Check ? High Limit Low Limit
Chk Pass Chk Pass

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00079	.00715	.00151	.02019	5.8583	.01260	22.897	.00026	.00443
Stddev	.00004	.00023	.00020	.00150	.0846	.00141	.024	.00008	.00015
%RSD	4.6054	3.1506	13.071	7.4295	1.4448	11.195	.10612	29.587	3.3731
#1	-.00076	.00731	.00165	.01913	5.9181	.01360	22.914	.00032	.00432
#2	-.00081	.00699	.00137	.02125	5.7984	.01160	22.880	.00021	.00453

Check ? High Limit Low Limit
Chk Pass Chk Pass

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	21.578	.00102	.03187	-.00119	10.476	-.00140	.00158	26.065	-.00046
Stddev	.350	.00015	.00045	.00031	.003	.00018	.00037	.013	.00051
%RSD	1.6240	14.669	1.4026	25.931	.03025	13.104	23.606	.04946	110.75
#1	21.330	.00092	.03219	-.00141	10.474	-.00153	.00132	26.075	-.00082
#2	21.826	.00113	.03156	-.00097	10.479	-.00127	.00184	26.056	-.00010

Check ? High Limit Low Limit
Chk Pass Chk Pass

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.18568	.00424	.00031	-.00002	.00382	.02588	-.00115	.00232
Stddev	.00017	.00013	.00032	.00131	.02257	.00034	.00003	.00103
%RSD	.08980	2.9922	101.49	6082.0	591.17	1.3031	2.7744	44.310
#1	.18580	.00433	.00009	-.00095	.01978	.02612	-.00113	.00159
#2	.18556	.00415	.00054	.00090	-.01214	.02564	-.00117	.00304

Check ? High Limit Low Limit
Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5950.2	83508.	5126.2
Stddev	10.2	29.	2.1
%RSD	.17215	.03527	.04087
#1	5943.0	83529.	5127.7
#2	5957.5	83487.	5124.8

Sample Name: 280-70117-L-4-B Acquired: 6/15/2015 19:19:55 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 280464 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0081	.00776	.00361	.34324	.00200	.00011	-0.00096	33.620	.00063
Stddev	.00036	.00090	.00255	.00081	.00007	.00003	.00093	.062	.00007
%RSD	44.504	11.580	70.581	.23522	3.3625	29.045	97.190	.18314	10.429
#1	-.00107	.00712	.00541	.34267	.00205	.00009	-.00030	33.576	.00058
#2	-.00056	.00839	.00181	.34381	.00196	.00014	-.00161	33.663	.00067

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00006	.00035	.00194	.06084	27.066	.02001	78.942	.00288	.00160
Stddev	.00000	.00013	.00014	.00168	.076	.00118	.044	.00002	.00021
%RSD	1.9566	38.343	7.0910	2.7687	.28099	5.8759	.05549	.78349	12.966
#1	.00006	.00045	.00184	.05965	27.012	.02084	78.911	.00286	.00145
#2	.00006	.00026	.00204	.06203	27.120	.01918	78.973	.00289	.00175

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	157.90	.00114	.06408	W -0.00344	33.559	-0.00192	W -0.00738	8.5470	-0.00089
Stddev	.76	.00004	.00195	.00031	.117	.00065	.00480	.0357	.00012
%RSD	.48350	3.2102	3.0419	8.9247	.34883	33.926	65.144	.41777	13.545
#1	157.36	.00116	.06270	-.00366	33.476	-.00238	-.01077	8.5722	-.00080
#2	158.44	.00111	.06545	-.00322	33.642	-.00146	-.00398	8.5217	-.00097

Check ? High Limit Low Limit
 Chk Pass Chk Pass Chk Pass Chk Warn 10.000 Chk Pass Chk Pass Chk Warn 5.0000 Chk Pass Chk Pass
 -0.00300 -0.00500

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0705	-0.0014	.00051	.00087	.00815	.00063	-0.00129	.00032
Stddev	.0026	.00143	.00001	.00066	.04772	.00023	.00062	.00177
%RSD	.12330	1033.6	1.8888	75.626	585.65	36.124	48.234	547.69
#1	2.0687	-.00115	.00050	.00134	-.02560	.00047	-.00085	.00157
#2	2.0723	.00088	.00051	.00041	.04189	.00079	-.00173	-.00093

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5709.0	80553.	5062.2
Stddev	13.8	29.	26.2
%RSD	.24182	.03550	.51782
#1	5718.8	80573.	5080.8
#2	5699.2	80533.	5043.7

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00092	50.811	.00023	.00367	-0.00001	.00011	1.0156	.01136	-0.00120	.00095	.00037	.01764	50.800
Stddev	.00012	.276	.00043	.00085	.00013	.00005	.0002	.00125	.00001	.00002	.00018	.00062	.319
%RSD	12.619	.54345	185.21	23.277	1312.7	50.375	.01816	10.987	.46824	1.6573	46.997	3.4923	.62855

#1	-0.00084	50.615	-0.00007	.00306	-0.00010	.00014	1.0155	.01047	-0.00120	.00093	.00025	.01807	50.574
#2	-0.00100	51.006	.00054	.00427	.00008	.00007	1.0157	.01224	-0.00119	.00096	.00050	.01720	51.026

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.12698	.00081	.00343	.00146	-0.00155	259.80	.00207	.00696	-0.00087	5.0021	.01254	.00159	.00933
Stddev	.04829	.00107	.00617	.00002	.00016	.49	.00002	.00196	.00030	.0070	.00283	.00172	.02376
%RSD	38.031	131.30	179.77	1.6301	10.090	.18766	.86822	28.180	34.939	.13969	22.546	108.00	254.71

#1	.09283	.00006	.00780	.00144	-0.00144	259.45	.00208	.00835	-0.00108	4.9971	.01054	.00038	-0.00747
#2	.16112	.00157	-0.00093	.00147	-0.00166	260.14	.00206	.00558	-0.00065	5.0070	.01454	.00281	.02613

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00006	.00059	4.9032	.00163	.00015	9.9631	.00129	-0.00119	.20460
Stddev	.00098	.00012	.0086	.00004	.00133	.0005	.00012	.00005	.00237
%RSD	1522.0	20.511	.17633	2.4638	866.04	.00502	9.4548	4.0906	1.1584

#1	.00063	.00051	4.9093	.00166	-0.00079	9.9634	.00138	-0.00116	.20628
#2	-0.00076	.00068	4.8970	.00160	.00110	9.9627	.00121	-0.00123	.20293

Check ?	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5810.6	80661.	5099.6
Stddev	1.6	90.	11.1
%RSD	.02739	.11193	.21756

#1	5809.5	80725.	5107.5
#2	5811.7	80597.	5091.8

Sample Name: ccv-3330457 Acquired: 6/15/2015 19:25:05 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51846	.52427	.97642	.49876	.53063	.49966	-.05255	5.0804	.50947	.50387	.50177	.50641	2.4832
Stddev	.00108	.00032	.00014	.00065	.00027	.00070	.00076	.0080	.00031	.00004	.00010	.00212	.0040
%RSD	.20783	.06129	.01460	.13036	.05016	.13951	1.4469	.15648	.06154	.00777	.01894	.41844	.16009

#1	.51770	.52449	.97632	.49922	.53082	.50016	-.05309	5.0860	.50969	.50384	.50170	.50491	2.4804
#2	.51922	.52404	.97652	.49830	.53045	.49917	-.05202	5.0747	.50925	.50390	.50183	.50791	2.4860

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.646	1.0560	20.028	.50466	.50258	5.3613	.50580	.99364	1.0181	-.00356	1.0020	.97745	5.0302
Stddev	.030	.0004	.008	.00082	.00025	.0188	.00086	.00159	.0012	.00042	.0002	.00448	.0147
%RSD	.06112	.04223	.03880	.16197	.05019	.35083	.17085	.16021	.12170	11.848	.01842	.45824	.29321

#1	49.667	1.0557	20.034	.50408	.50276	5.3746	.50519	.99476	1.0172	-.00386	1.0021	.98061	5.0197
#2	49.624	1.0563	20.023	.50524	.50240	5.3480	.50641	.99251	1.0190	-.00327	1.0019	.97428	5.0406

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass								
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.99937	.51212	.02059	.51268	1.0255	.00426	.49534	.50522	.49923
Stddev	.00009	.00051	.00076	.00084	.0010	.00044	.00075	.00070	.00112
%RSD	.00928	.10009	3.7091	.16424	.09767	10.306	.15050	.13884	.22461

#1	.99944	.51248	.02113	.51208	1.0262	.00395	.49587	.50472	.49844
#2	.99931	.51176	.02005	.51327	1.0248	.00457	.49482	.50571	.50002

Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5928.9	83029.	5081.8
Stddev	3.8	128.	2.9
%RSD	.06431	.15391	.05804

#1	5926.2	82939.	5079.7
#2	5931.6	83120.	5083.9

Sample Name: CCB Acquired: 6/15/2015 19:27:31 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00066	.00060	.00228	W .00165	.00005	.00008	-0.00035	.00633	.00011	-0.00030	.00006	.00017
Stddev	.00007	.00080	.00045	.00067	.00005	.00009	.00171	.00188	.00006	.00009	.00000	.00029
%RSD	10.713	133.72	19.882	40.648	98.124	114.71	484.50	29.736	56.152	28.489	3.1612	167.31

#1	-.00071	.00116	.00260	.00213	.00009	.00001	.00086	.00766	.00007	-.00024	.00006	-.00003
#2	-.00061	.00003	.00196	.00118	.00002	.00014	-.00156	.00500	.00015	-.00037	.00006	.00037

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.00156								
Low Limit				-.00156								

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00193	-.05587	.00155	.00351	-.00008	.00139	.04829	.00042	.00234	-.00111	.00067	-.00126
Stddev	.00247	.01449	.00067	.00033	.00007	.00012	.00485	.00042	.00078	.00054	.00053	.00105
%RSD	128.07	25.941	43.602	9.5023	94.426	8.5461	10.036	101.39	33.391	48.482	79.294	83.469

#1	.00367	-.04562	.00202	.00327	-.00003	.00130	.05172	.00071	.00289	-.00149	.00029	-.00052
#2	.00018	-.06612	.00107	.00374	-.00013	.00147	.04486	.00012	.00179	-.00073	.00104	-.00201

Check ?	Chk Pass	None	Chk Pass									
High Limit												
Low Limit												

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .00592	-.00369	-.00048	.00008	.00087	.00033	-.00041	.00814	-.00066	-.00292	.00084
Stddev	.00401	.00827	.00022	.00014	.00087	.00023	.00000	.00858	.00082	.00004	.00153
%RSD	67.806	223.96	47.075	182.24	99.926	68.911	.73293	105.43	124.09	1.4299	183.15

#1	.00876	.00216	-.00063	.00018	.00149	.00050	-.00041	.00207	-.00125	-.00295	.00192
#2	.00308	-.00954	-.00032	-.00002	.00026	.00017	-.00042	.01421	-.00008	-.00289	-.00025

Check ?	Chk Warn	Chk Pass									
High Limit	.00486										
Low Limit	-.00486										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5972.9	84800.	5031.4
Stddev	6.6	45.	10.9
%RSD	.11032	.05276	.21656

#1	5977.6	84769.	5039.1
#2	5968.3	84832.	5023.7

Sample Name: CCVL3330451 Acquired: 6/15/2015 19:30:13 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01058	.11066	.01530	.10185	.01119	.00112	W .12115	.22787	.00547	.01059	.01056	.01657
Stddev	.00006	.00023	.00056	.00029	.00051	.00005	.00348	.00159	.00013	.00006	.00022	.00026
%RSD	.58442	.20565	3.6331	.28568	4.5759	4.2097	2.8748	.69748	2.4431	.58400	2.0396	1.5502

#1	.01053	.11050	.01569	.10165	.01155	.00108	.12362	.22899	.00537	.01064	.01041	.01639
#2	.01062	.11082	.01490	.10206	.01082	.00115	.11869	.22674	.00556	.01055	.01071	.01675

Check ?	Chk Pass	Chk Warn	Chk Pass									
Value							.10000					
Range							20.000%					

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10068	3.0171	F .01317	.21757	.01062	.02071	1.1380	.04292	2.9647	.00944	-.00039	.00875
Stddev	.00179	.0142	.00234	.00147	.00006	.00009	.0140	.00008	.0080	.00173	.00032	.00098
%RSD	1.7765	.47047	17.804	.67733	.53389	.44008	1.2324	.19352	.26868	18.356	83.100	11.199

#1	.10194	3.0271	.01483	.21861	.01066	.02064	1.1281	.04298	2.9703	.00821	-.00062	.00806
#2	.09941	3.0070	.01151	.21653	.01058	.02077	1.1479	.04286	2.9591	.01066	-.00016	.00945

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass						
Value			.01000									
Range			30.000%									

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .01175	.50811	.10419	.01059	.01538	.01089	.01595	.05688	.00853	.01976	.01694
Stddev	.00514	.00137	.00035	.00015	.00142	.00014	.00042	.04376	.00089	.00040	.00062
%RSD	43.719	.27049	.33604	1.3795	9.2217	1.3094	2.6497	76.940	10.417	2.0339	3.6634

#1	.00812	.50908	.10394	.01049	.01438	.01099	.01625	.08782	.00916	.02004	.01737
#2	.01538	.50713	.10444	.01070	.01638	.01079	.01566	.02593	.00791	.01947	.01650

Check ?	Chk Warn	Chk Pass									
Value	.01500										
Range	-20.000%										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6017.5	85010.	5039.8
Stddev	2.2	82.	6.5
%RSD	.03718	.09618	.12885

#1	6019.1	85068.	5044.4
#2	6015.9	84953.	5035.2

Sample Name: 280-70261-B-1-A Acquired: 6/15/2015 19:32:49 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 280464 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0078	-0.01254	.01778	53.850	.07253	.00017	-0.00232	67.973	.00018
Stddev	.00033	.00046	.00067	.018	.00004	.00001	.00196	.228	.00017
%RSD	42.149	3.6688	3.7528	.03385	.05977	4.0906	84.526	.33551	94.642
#1	-0.0101	-0.01287	.01731	53.837	.07256	.00017	-0.00370	68.134	.00006
#2	-0.00055	-0.01222	.01826	53.863	.07250	.00017	-0.00093	67.812	.00029

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00058	.00201	.00334	.05857	60.766	1.2588	192.99	.00595	1.0245
Stddev	.00035	.00006	.00032	.00094	1.283	.0040	.27	.00001	.0002
%RSD	60.762	3.1315	9.4544	1.5976	2.1109	.31839	.13985	.21572	.02170
#1	.00083	.00205	.00311	.05791	59.859	1.2559	193.18	.00596	1.0247
#2	.00033	.00196	.00356	.05923	61.673	1.2616	192.80	.00594	1.0244

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 6919.6	.61789	2.0029	W -.00326	F 1499.0	W -.01386	.02118	28.745	-.00130
Stddev	5.5	.00002	.0028	.00063	.3	.00294	.00195	.007	.00113
%RSD	.07900	.00396	.14050	19.474	.01943	21.193	9.2199	.02272	86.888
#1	6923.4	.61790	2.0049	-.00371	1498.8	-.01178	.01980	28.750	-.00210
#2	6915.7	.61787	2.0010	-.00281	1499.2	-.01594	.02256	28.741	-.00050

Check ? Chk Warn Chk Pass Chk Pass Chk Warn Chk Fail Chk Warn Chk Pass Chk Pass Chk Pass
 High Limit 500.00 10.000
 Low Limit 10.000 -0.00300 -0.20000 -0.01000

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.0709	.00137	.00100	.00116	.09569	.02352	.00388	.00117
Stddev	.0925	.00005	.00011	.00197	.02918	.00014	.00032	.00052
%RSD	1.5243	3.5688	11.014	170.20	30.495	.60580	8.3166	44.307
#1	6.1363	.00141	.00092	-.00024	.07505	.02342	.00411	.00081
#2	6.0054	.00134	.00108	.00255	.11632	.02362	.00365	.00154

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	4751.8	63846.	4842.1
Stddev	.1	187.	.8
%RSD	.00152	.29328	.01732
#1	4751.8	63714.	4842.6
#2	4751.7	63979.	4841.5

Sample Name: 280-70261-B-2-A Acquired: 6/15/2015 19:35:54 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment: 280464 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0080	.30468	.00692	34.792	.41411	.00010	-0.00269	66.775	-0.0001
Stddev	.00029	.00010	.00128	.010	.00199	.00007	.00191	.137	.00019
%RSD	36.197	.03223	18.549	.03014	.48050	73.395	70.964	.20502	1589.8
#1	-.00101	.30475	.00602	34.799	.41270	.00005	-.00405	66.678	-.00015
#2	-.00060	.30461	.00783	34.784	.41551	.00015	-.00134	66.872	.00012

Check ? High Limit Low Limit
Chk Pass Chk Pass

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00054	.00991	.00406	.45391	32.259	.81452	76.223	.41144	.01123
Stddev	.00013	.00015	.00087	.00325	.364	.00423	.365	.00141	.00020
%RSD	23.536	1.5596	21.531	.71570	1.1293	.51932	.47899	.34181	1.8109
#1	.00063	.01001	.00344	.45161	32.001	.81152	76.481	.41243	.01137
#2	.00045	.00980	.00467	.45620	32.516	.81751	75.965	.41044	.01108

Check ? High Limit Low Limit
Chk Pass Chk Pass

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4168.6	.14133	2.0823	W -.00332	F 671.74	-.00378	.00114	17.467	-.00138
Stddev	7.2	.00020	.0017	.00000	.21	.00078	.00044	.062	.00046
%RSD	.17352	.14092	.08346	.07714	.03056	20.582	38.526	.35224	33.114
#1	4163.5	.14147	2.0811	-.00332	671.59	-.00433	.00145	17.424	-.00105
#2	4173.8	.14118	2.0835	-.00332	671.88	-.00323	.00083	17.511	-.00170

Check ? High Limit Low Limit
Chk Warn Chk Pass Chk Pass Chk Warn Chk Fail Chk Pass Chk Pass Chk Pass Chk Pass

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.3692	.00148	.00999	.00006	.00004	.05588	.00054	.00699
Stddev	.0041	.00142	.00001	.00054	.03070	.00065	.00003	.00280
%RSD	.17374	96.492	.11284	849.52	69428.	1.1580	5.0322	40.080
#1	2.3663	.00047	.00999	-.00032	-.02166	.05542	.00052	.00897
#2	2.3721	.00248	.01000	.00044	.02175	.05633	.00055	.00501

Check ? High Limit Low Limit
Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5068.5	68085.	4974.5
Stddev	1.9	11.	41.3
%RSD	.03718	.01675	.83092
#1	5067.2	68093.	5003.7
#2	5069.9	68077.	4945.2

Sample Name: 280-70261-B-3-A Acquired: 6/15/2015 19:38:55 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 280464 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0091	-0.00379	.00923	34.125	.06623	.00016	-0.00368	83.967	.00026
Stddev	.00003	.00023	.00515	.013	.00018	.00001	.00007	.265	.00004
%RSD	3.5146	6.0871	55.781	.03836	.27796	5.5035	2.0357	.31609	14.033
#1	-0.00088	-0.00395	.01288	34.135	.06610	.00015	-0.00363	84.155	.00028
#2	-0.00093	-0.00362	.00559	34.116	.06637	.00017	-0.00373	83.779	.00023
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00095	.00117	.00419	.03007	44.489	1.0355	104.26	.02918	.11623
Stddev	.00024	.00005	.00005	.00072	.141	.0021	.03	.00007	.00049
%RSD	25.117	4.4576	1.1147	2.3900	.31669	.20369	.02944	.23867	.42170
#1	.00078	.00121	.00415	.03058	44.390	1.0370	104.28	.02914	.11657
#2	.00112	.00113	.00422	.02956	44.589	1.0340	104.24	.02923	.11588
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4009.2	.34548	.96016	W -.00363	F 948.14	-.00247	.00162	34.958	-.00114
Stddev	8.0	.00009	.00197	.00392	.01	.00171	.00505	.066	.00050
%RSD	.19968	.02691	.20519	107.97	.00087	69.089	312.33	.18874	43.976
#1	4014.9	.34555	.95877	-0.00086	948.14	-0.00368	.00519	35.005	-0.00149
#2	4003.5	.34542	.96155	-0.00640	948.13	-0.00126	-0.00195	34.912	-0.00078
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00			10.000	200.00				
Low Limit	10.000			-0.00300	-0.20000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.1688	.00181	.00140	-.00051	.07680	.02094	-.00119	.00055
Stddev	.0056	.00114	.00017	.00012	.00296	.00019	.00032	.00070
%RSD	.17750	63.114	12.250	22.787	3.8487	.89988	26.767	128.14
#1	3.1728	.00100	.00153	-0.00042	.07471	.02107	-0.00141	.00104
#2	3.1648	.00262	.00128	-0.00059	.07889	.02080	-0.00096	.00005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5060.0	68658.	4972.6
Stddev	2.4	138.	8.0
%RSD	.04795	.20030	.15990
#1	5061.7	68756.	4967.0
#2	5058.2	68561.	4978.2

Sample Name: 280-70261-B-4-A Acquired: 6/15/2015 19:41:56 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 280464 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0014	.00124	.00072	.11642	-0.00025	.00006	.00387	.02427	.00023
Stddev	.00032	.00016	.00068	.00680	.00034	.00001	.00138	.00256	.00001
%RSD	239.24	12.699	95.436	5.8408	135.35	17.106	35.715	10.564	5.3743

#1	.00009	.00135	.00120	.12123	-.00001	.00006	.00485	.02608	.00024
#2	-.00037	.00113	.00023	.11161	-.00049	.00007	.00289	.02246	.00022

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0009	.00006	.00054	.00048	.23668	.00269	.00372	.00006	.00060
Stddev	.00008	.00011	.00044	.00038	.05849	.00018	.00006	.00000	.00018
%RSD	94.987	185.10	80.927	79.713	24.713	6.7326	1.6113	.72356	29.772

#1	-.00003	.00014	.00086	.00021	.27804	.00282	.00368	.00006	.00047
#2	-.00014	-.00002	.00023	.00074	.19532	.00256	.00376	.00006	.00072

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.0249	-0.0017	.00713	.00075	.39070	-0.00216	-0.00339	.02222	-0.0062
Stddev	.2672	.00043	.00037	.00060	.02179	.00040	.00140	.01234	.00028
%RSD	6.6396	250.86	5.2364	79.463	5.5784	18.347	41.103	55.521	44.978

#1	4.2139	.00013	.00687	.00118	.40611	-.00188	-.00241	.03094	-.00081
#2	3.8359	-.00048	.00740	.00033	.37529	-.00244	-.00438	.01349	-.00042

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00009	.00221	.00028	-0.00077	-0.01988	-0.00088	-0.00267	.00180
Stddev	.00004	.00092	.00006	.00037	.01702	.00030	.00008	.00035
%RSD	38.511	41.659	22.481	48.008	85.624	33.822	2.8726	19.209

#1	.00007	.00156	.00023	-.00051	-.00784	-.00067	-.00262	.00205
#2	.00012	.00285	.00032	-.00103	-.03192	-.00109	-.00273	.00156

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6100.0	87317.	5132.4
Stddev	12.2	93.	15.7
%RSD	.20008	.10687	.30528

#1	6091.3	87251.	5143.4
#2	6108.6	87383.	5121.3

Sample Name: 280-70261-B-6-A Acquired: 6/15/2015 19:44:37 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 280464 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0115	-0.00657	.00662	31.956	.05111	.00014	-0.00388	27.651	-0.00041
Stddev	.00077	.00044	.00254	.017	.00057	.00005	.00055	.011	.00003
%RSD	66.300	6.7679	38.317	.05171	1.1126	34.676	14.195	.03821	7.7165

#1	-0.00061	-0.00626	.00841	31.968	.05152	.00017	-0.00427	27.658	-0.00043
#2	-0.00170	-0.00688	.00482	31.944	.05071	.00010	-0.00349	27.643	-0.00039

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00019	.00160	.00402	.02559	43.416	.66215	19.890	.02242	.00448
Stddev	.00001	.00009	.00022	.00187	.445	.00190	.021	.00007	.00017
%RSD	2.6353	5.5972	5.5756	7.3017	1.0254	.28640	.10524	.31077	3.8745

#1	-0.00019	.00153	.00418	.02427	43.101	.66349	19.905	.02247	.00460
#2	-0.00019	.00166	.00386	.02691	43.731	.66081	19.875	.02237	.00436

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4439.0	.00088	1.7923	W -.00480	F 371.22	-.00177	W -.00612	39.685	-.00066
Stddev	.8	.00017	.0010	.00056	.01	.00007	.00282	.018	.00043
%RSD	.01796	19.201	.05368	11.605	.00256	3.8417	46.174	.04469	66.017

#1	4439.6	.00101	1.7930	-.00441	371.22	-.00172	-.00811	39.672	-.00035
#2	4438.4	.00076	1.7917	-.00520	371.21	-.00182	-.00412	39.698	-.00096

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Fail	Chk Pass	Chk Warn	Chk Pass	Chk Pass
High Limit	500.00			10.000	200.00		5.0000		
Low Limit	10.000			-.00300	-.02000		-.00500		

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0565	.00015	.00128	.00039	.04937	.00277	-.00051	.00883
Stddev	.0003	.00321	.00030	.00059	.00533	.00032	.00005	.00255
%RSD	.02858	2176.4	23.253	151.72	10.789	11.605	10.748	28.871

#1	1.0568	.00241	.00149	.00081	.05314	.00300	-.00047	.01063
#2	1.0563	-.00212	.00107	-.00003	.04561	.00255	-.00055	.00703

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	4962.5	66712.	4849.8
Stddev	6.8	64.	7.0
%RSD	.13730	.09638	.14457

#1	4957.7	66757.	4844.8
#2	4967.3	66666.	4854.7

Sample Name: 280-70261-B-7-A Acquired: 6/15/2015 19:47:38 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 280464 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0061	.01447	.04624	37.358	.12837	.00012	-0.00233	94.087	-0.0051
Stddev	.00017	.00028	.00060	.003	.00140	.00006	.00030	.801	.00016
%RSD	27.602	1.9045	1.2898	.00799	1.0895	51.584	13.032	.85154	30.929
#1	-.00049	.01467	.04581	37.360	.12935	.00016	-.00211	94.654	-.00063
#2	-.00073	.01428	.04666	37.356	.12738	.00007	-.00254	93.521	-.00040

Check ? High Limit Low Limit
Chk Pass Chk Pass

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00019	.00322	.00279	.00227	63.401	1.1399	38.582	.26468	.13790
Stddev	.00016	.00014	.00029	.00107	.238	.0077	.049	.00016	.00007
%RSD	84.862	4.3963	10.475	47.432	.37577	.67367	.12751	.05929	.05222
#1	.00008	.00332	.00300	.00151	63.233	1.1454	38.617	.26456	.13785
#2	.00030	.00312	.00259	.00302	63.570	1.1345	38.547	.26479	.13795

Check ? High Limit Low Limit
Chk Pass Chk Pass

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 5646.2	.08288	2.1018	W -.00511	F 540.72	-0.00409	.00029	26.254	-0.0112
Stddev	45.8	.00040	.0059	.00066	.06	.00130	.00259	.304	.00145
%RSD	.81058	.48232	.27978	12.956	.01066	31.900	889.01	1.1598	129.06
#1	5678.6	.08260	2.0976	-.00464	540.76	-.00317	.00213	26.469	-.00215
#2	5613.8	.08316	2.1059	-.00558	540.68	-.00501	-.00154	26.039	-.00010

Check ? High Limit Low Limit
Chk Warn Chk Pass Chk Pass Chk Warn Chk Fail Chk Pass Chk Pass Chk Pass Chk Pass

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.4047	.00083	.01032	.00104	.01264	.02591	-0.00063	.00506
Stddev	.0487	.00141	.00011	.00042	.00172	.00080	.00045	.00162
%RSD	.90158	170.79	1.0438	39.840	13.601	3.0984	71.631	32.095
#1	5.4392	-.00017	.01024	.00134	.01143	.02648	-.00031	.00391
#2	5.3703	.00183	.01040	.00075	.01386	.02534	-.00094	.00621

Check ? High Limit Low Limit
Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	4874.1	65380.	4935.9
Stddev	2.4	135.	41.6
%RSD	.04837	.20638	.84357
#1	4875.8	65285.	4906.4
#2	4872.4	65476.	4965.3

Sample Name: 280-70261-B-8-A Acquired: 6/15/2015 19:50:38 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 280464 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0041	.07699	.04819	38.149	.14888	.00011	-0.00749	97.423	-0.0017
Stddev	.00003	.00089	.00269	.028	.00019	.00008	.00117	.146	.00002
%RSD	7.6905	1.1512	5.5841	.07310	.12714	77.466	15.574	.15023	10.611

#1	-0.0043	.07761	.04629	38.129	.14901	.00005	-.00832	97.526	-.00018
#2	-0.00039	.07636	.05009	38.169	.14874	.00017	-.00667	97.319	-.00016

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0010	.00363	.00403	.22059	65.715	1.1849	39.469	.27265	.15018
Stddev	.00009	.00004	.00029	.00264	.852	.0036	.007	.00037	.00001
%RSD	87.478	1.1911	7.2160	1.1957	1.2959	.30245	.01882	.13470	.00848

#1	-0.0004	.00360	.00423	.21872	65.113	1.1824	39.464	.27291	.15017
#2	-0.0016	.00366	.00382	.22245	66.318	1.1875	39.474	.27239	.15019

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 5841.6	.08557	2.1581	W -.00432	F 545.47	-.00237	.00035	27.300	-.00139
Stddev	7.2	.00002	.0125	.00176	.27	.00002	.00093	.080	.00012
%RSD	.12352	.02573	.57994	40.765	.04872	.72196	267.97	.29136	8.5582

#1	5836.5	.08558	2.1492	-.00307	545.29	-.00238	-.00031	27.356	-.00131
#2	5846.7	.08555	2.1669	-.00556	545.66	-.00236	.00100	27.244	-.00147

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00			10.000	200.00				
Low Limit	10.000			-.00300	-.02000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.5683	.00339	.01455	.00125	.04798	.02807	.00063	.00338
Stddev	.0244	.00513	.00036	.00193	.03729	.00075	.00012	.00052
%RSD	.43750	151.19	2.4497	155.10	77.730	2.6679	18.966	15.417

#1	5.5855	.00702	.01480	-.00012	.02161	.02860	.00054	.00374
#2	5.5510	-.00023	.01430	.00261	.07434	.02754	.00071	.00301

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	4871.5	65441.	4883.4
Stddev	2.0	134.	2.3
%RSD	.04204	.20464	.04706

#1	4872.9	65536.	4881.7
#2	4870.0	65347.	4885.0

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0021	52.124	.00140	.14953	.00014	.00006	1.0307	.01251	-0.00132	.00123	.00060	.01791	52.072
Stddev	.00057	.263	.00443	.00840	.00005	.00000	.0011	.00069	.00011	.00022	.00006	.00011	.171
%RSD	268.87	.50485	316.55	5.6159	38.557	6.2344	.10943	5.5368	8.1628	18.055	10.480	.58644	.32831

#1	.00019	52.310	.00454	.15547	.00010	.00005	1.0315	.01202	-.00140	.00107	.00056	.01783	52.193
#2	-.00061	51.937	-.00173	.14359	.00018	.00006	1.0299	.01300	-.00125	.00139	.00065	.01798	51.951

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10730	.00459	.00195	.00150	-.00170	266.10	.00249	.01555	-0.00083	5.3365	.01209	-0.00079	-0.00203
Stddev	.00076	.00008	.00271	.00003	.00013	1.33	.00003	.00356	.00014	.0146	.00042	.00021	.01291
%RSD	.70857	1.7621	138.81	2.1737	7.8347	.49857	1.3505	22.910	17.014	.27363	3.5003	26.726	636.95

#1	.10676	.00465	.00387	.00147	-.00160	267.03	.00251	.01807	-.00093	5.3262	.01179	-.00094	.00710
#2	.10784	.00453	.00004	.00152	-.00179	265.16	.00247	.01303	-.00073	5.3469	.01239	-.00064	-.01115

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00041	.00056	4.9738	.00161	.00058	10.041	.00116	-0.00135	.21095
Stddev	.00042	.00008	.0022	.00015	.00078	.023	.00012	.00011	.00031
%RSD	102.17	13.576	.04394	9.4777	135.03	.22783	10.410	8.0686	.14689

#1	.00011	.00062	4.9722	.00150	.00113	10.025	.00125	-.00127	.21117
#2	.00071	.00051	4.9753	.00172	.00003	10.058	.00108	-.00142	.21073

Check ?	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5790.5	80892.	5045.1
Stddev	5.9	80.	25.6
%RSD	.10153	.09842	.50767

#1	5786.4	80836.	5027.0
#2	5794.7	80948.	5063.2

Sample Name: ccv-3330457 Acquired: 6/15/2015 19:56:19 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51113	.51523	.97396	F .60033	.53276	.49783	-.05099	5.0503	.50478	.50501	.50043	.50510
Stddev	.00053	.00031	.00060	.00369	.00032	.00050	.00226	.0081	.00056	.00027	.00112	.00047
%RSD	.10336	.06059	.06117	.61540	.06008	.09982	4.4342	.16017	.11118	.05297	.22317	.09391

#1	.51150	.51501	.97438	.60294	.53254	.49748	-.05259	5.0446	.50518	.50520	.50122	.50543
#2	.51075	.51545	.97354	.59771	.53299	.49818	-.04939	5.0560	.50439	.50482	.49964	.50476

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass				
Value				.50000								
Range				10.000%								

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.4887	49.763	1.0698	19.625	.49826	.50201	F 6.7563	.50431	.99290	1.0098	.18887	.99453
Stddev	.0074	.041	.0020	.029	.00060	.00172	.0573	.00042	.00193	.0025	.01168	.00151
%RSD	.29904	.08297	.18346	.14604	.12015	.34174	.84879	.08230	.19462	.24860	6.1866	.15213

#1	2.4940	49.734	1.0684	19.646	.49869	.50322	6.7968	.50460	.99426	1.0115	.19714	.99560
#2	2.4834	49.792	1.0712	19.605	.49784	.50079	6.7157	.50401	.99153	1.0080	.18061	.99346

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass					
Value							5.0000					
Range							10.000%					

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.97394	5.0263	.99134	.51702	.01908	.50801	1.0154	-.00193	.48517	.49601	.50568
Stddev	.00028	.0036	.00213	.00048	.00118	.00155	.0025	.00490	.00081	.00169	.00161
%RSD	.02824	.07142	.21443	.09346	6.1929	.30545	.24482	254.13	.16688	.34129	.31780

#1	.97413	5.0289	.99284	.51668	.01824	.50911	1.0137	.00154	.48575	.49481	.50454
#2	.97374	5.0238	.98983	.51736	.01991	.50691	1.0172	-.00540	.48460	.49720	.50681

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5932.3	83472.	5030.1
Stddev	8.6	253.	7.3
%RSD	.14461	.30322	.14418

#1	5938.4	83293.	5024.9
#2	5926.2	83651.	5035.2

Sample Name: CCB Acquired: 6/15/2015 19:58:46 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00056	-.00017	-.00007	F .08548	-.00039	.00010	.00077	.01004	.00010	-.00030	-.00002	-.00016
Stddev	.00045	.00016	.00113	.00253	.00000	.00004	.00329	.00251	.00012	.00016	.00001	.00006
%RSD	79.114	97.088	1563.5	2.9549	.62079	38.295	429.60	25.028	112.94	53.034	34.926	39.222

#1	.00025	-.00028	-.00087	.08727	-.00039	.00008	-.00156	.00827	.00002	-.00019	-.00001	-.00012
#2	.00088	-.00005	.00073	.08370	-.00039	.00013	.00309	.01182	.00019	-.00041	-.00002	-.00021

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.00312								
Low Limit				-.00312								

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00073	-.05093	.00186	-.00063	-.00003	.00117	F 1.0155	-.00030	.00502	-.00060	.12228	-.00163
Stddev	.00094	.10129	.00139	.00118	.00000	.00027	.0140	.00038	.00422	.00049	.00068	.00024
%RSD	128.00	198.86	74.580	188.55	6.2403	23.330	1.3768	126.35	84.074	81.759	.55204	14.798

#1	-.00140	.02069	.00284	.00021	-.00003	.00098	1.0254	-.00003	.00800	-.00095	.12181	-.00180
#2	-.00007	-.12255	.00088	-.00146	-.00003	.00137	1.0057	-.00056	.00204	-.00025	.12276	-.00146

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass					
High Limit							.20152					
Low Limit							-.20152					

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00089	.01079	-.00096	-.00004	.00052	.00007	-.00015	-.00355	-.00091	-.00369	.00069
Stddev	.00741	.01542	.00050	.00001	.00078	.00005	.00089	.01976	.00043	.00021	.00049
%RSD	835.37	142.89	52.165	27.370	149.41	76.575	596.57	557.31	47.496	5.5817	70.954

#1	-.00435	.02170	-.00060	-.00005	-.00003	.00011	.00048	.01043	-.00060	-.00384	.00103
#2	.00613	-.00011	-.00131	-.00003	.00107	.00003	-.00077	-.01752	-.00121	-.00354	.00034

Check ?	Chk Pass										
High Limit											
Low Limit											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6047.1	85947.	5043.0
Stddev	3.2	239.	9.4
%RSD	.05315	.27760	.18642

#1	6044.8	86116.	5049.7
#2	6049.3	85778.	5036.4

Sample Name: CCVL3330451 Acquired: 6/15/2015 20:01:28 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01078	.11000	.01446	F .16991	.01085	.00110	W .12030	.21836	.00543	.01048	.01041	.01598
Stddev	.00033	.00023	.00093	.00189	.00042	.00005	.00098	.00399	.00019	.00013	.00009	.00014
%RSD	3.0971	.21041	6.3976	1.1134	3.8336	4.6523	.81054	1.8255	3.4388	1.2538	.90205	.86283

#1	.01054	.11016	.01512	.17124	.01055	.00114	.12099	.22118	.00556	.01039	.01034	.01607
#2	.01102	.10983	.01381	.16857	.01114	.00106	.11961	.21554	.00530	.01057	.01047	.01588

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				.10000			.10000					
Range				30.000%			20.000%					

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10299	3.0842	F .01355	.21503	.01057	.02069	F 1.8268	.04219	2.9511	.00819	.09424	F .00662
Stddev	.00077	.0509	.00228	.00194	.00003	.00001	.0144	.00027	.0118	.00050	.00020	.00032
%RSD	.75005	1.6497	16.843	.90331	.27081	.05872	.78926	.65029	.39959	6.1011	.21629	4.7921

#1	.10354	3.1201	.01517	.21366	.01055	.02070	1.8370	.04238	2.9594	.00783	.09410	.00640
#2	.10245	3.0482	.01194	.21640	.01059	.02068	1.8166	.04199	2.9427	.00854	.09439	.00685

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Fail
Value			.01000				1.0000					.01000
Range			30.000%				30.000%					-30.000%

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01351	.51487	.10440	.01085	.01348	.01017	.01572	F .08363	.00916	.02024	.01787
Stddev	.00058	.00386	.00150	.00004	.00048	.00038	.00019	.01585	.00083	.00009	.00210
%RSD	4.3248	.74878	1.4370	.40970	3.5923	3.7036	1.2321	18.958	9.0606	.42928	11.770

#1	.01392	.51215	.10546	.01088	.01314	.01043	.01558	.09484	.00857	.02018	.01936
#2	.01309	.51760	.10334	.01082	.01382	.00990	.01585	.07242	.00974	.02030	.01639

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass						
Value								.06000			
Range								30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6041.6	85630.	5045.5
Stddev	12.2	2.	6.0
%RSD	.20222	.00262	.11939

#1	6033.0	85629.	5049.7
#2	6050.2	85632.	5041.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0046	.00126	-0.00088	F .05731	-0.00013	.00008	.00135	.01070	.00004
Stddev	.00037	.00003	.00024	.00081	.00035	.00008	.00462	.00061	.00011
%RSD	80.114	2.4669	27.752	1.4197	268.64	101.92	341.62	5.7433	296.72

#1	-0.0020	.00123	-0.0071	.05788	-0.0038	.00002	-0.00191	.01113	-0.0004
#2	-0.00073	.00128	-0.00105	.05673	.00012	.00014	.00462	.01027	.00011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass				
High Limit				.01000					
Low Limit				-.01000					

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00029	.00013	.00077	.00130	-0.05991	.00088	.00405	.00005	.00021
Stddev	.00002	.00001	.00016	.00088	.12658	.00030	.00124	.00000	.00006
%RSD	7.5099	9.2753	21.338	67.683	211.26	33.993	30.698	4.1643	30.738

#1	-0.0028	.00012	.00065	.00068	.02959	.00067	.00317	.00005	.00016
#2	-0.00031	.00014	.00088	.00192	-.14942	.00109	.00493	.00004	.00025

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .59169	-0.00005	W .00537	.00056	W .08159	-0.00071	-0.00172	.01797	-0.00075
Stddev	.02129	.00019	.00061	.00108	.00104	.00091	.00225	.01648	.00034
%RSD	3.5988	416.20	11.302	194.32	1.2729	128.68	130.18	91.705	45.349

#1	.60674	-0.00018	.00580	.00132	.08232	-0.00006	-0.00331	.00632	-0.00051
#2	.57663	.00009	.00494	-0.00021	.08085	-0.00136	-0.00014	.02962	-0.00099

Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.50000		.00500		.05000				
Low Limit	-.50000		-.00500		-.05000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00021	.00141	.00024	-0.00025	.01308	-0.00088	-0.00197	.00058
Stddev	.00001	.00006	.00005	.00151	.00428	.00018	.00031	.00060
%RSD	5.8556	4.2128	21.234	596.60	32.724	20.014	15.595	102.68

#1	.00020	.00137	.00021	-0.00132	.01005	-0.00076	-0.00219	.00016
#2	.00021	.00145	.00028	.00082	.01610	-0.00100	-0.00175	.00101

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6172.0	87371.	5101.9
Stddev	48.3	105.	2.8
%RSD	.78220	.12017	.05403

#1	6206.1	87445.	5103.8
#2	6137.9	87297.	5099.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05159	2.0187	1.0005	1.0898	2.1954	.05139	2.0882	51.619	.10391
Stddev	.00000	.0075	.0063	.0005	.0001	.00015	.0031	.043	.00027
%RSD	.00577	.37010	.62737	.04365	.00568	.28295	.15015	.08413	.26294

#1	.05158	2.0240	1.0050	1.0895	2.1955	.05149	2.0904	51.588	.10372
#2	.05159	2.0134	.99609	1.0902	2.1953	.05129	2.0859	51.649	.10411

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50580	.20403	.26077	.99871	51.114	1.0869	50.191	.50958	1.0715
Stddev	.00041	.00037	.00120	.00351	.044	.0022	.241	.00255	.0032
%RSD	.08170	.18060	.46197	.35138	.08659	.20482	.48105	.49987	.29857

#1	.50609	.20429	.25992	1.0012	51.082	1.0885	50.020	.50777	1.0737
#2	.50551	.20377	.26162	.99623	51.145	1.0853	50.362	.51138	1.0692

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	54.342	.50379	10.509	.51085	2.1236	.51238	2.0405	10.261	2.0386
Stddev	.161	.00140	.007	.00276	.0109	.00088	.0043	.025	.0020
%RSD	.29681	.27865	.06355	.54030	.51537	.17107	.20880	.23878	.09695

#1	54.456	.50478	10.514	.50890	2.1314	.51176	2.0435	10.279	2.0400
#2	54.228	.50279	10.504	.51281	2.1159	.51300	2.0375	10.244	2.0372

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0550	.98801	1.0468	2.0259	2.0345	.50403	.51224	.55709
Stddev	.0001	.00376	.0059	.0019	.0574	.00024	.00411	.00214
%RSD	.00573	.38091	.56238	.09568	2.8235	.04773	.80285	.38347

#1	1.0550	.98535	1.0426	2.0273	2.0751	.50386	.50933	.55860
#2	1.0549	.99067	1.0510	2.0245	1.9939	.50420	.51515	.55558

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5864.1	82611.	5068.8
Stddev	10.6	114.	5.1
%RSD	.18148	.13850	.10030

#1	5856.6	82692.	5065.2
#2	5871.6	82530.	5072.4

Sample Name: 280-70430-A-1-B Acquired: 6/15/2015 20:09:10 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 281202 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00004	.21504	.01018	1.0200	.70050	.00007	-.00520	116.77	.00055
Stddev	.00054	.00087	.00041	.0019	.00248	.00001	.00009	.42	.00008
%RSD	1409.1	.40647	4.0309	.18860	.35474	16.900	1.7530	.36018	15.347

#1	.00042	.21566	.01047	1.0214	.69874	.00006	-.00513	116.47	.00061
#2	-.00034	.21442	.00989	1.0187	.70225	.00007	-.00526	117.06	.00049

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00132	.00087	.00426	1.4026	22.711	.07926	108.88	.54210	.00236
Stddev	.00020	.00023	.00000	.0030	.094	.00132	.03	.00043	.00028
%RSD	15.064	26.014	.11353	.21082	.41266	1.6657	.02504	.07897	11.748

#1	.00147	.00071	.00426	1.4006	22.645	.07832	108.90	.54180	.00216
#2	.00118	.00102	.00427	1.4047	22.778	.08019	108.86	.54240	.00255

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1117.0	.00268	2.0805	-.00274	2.7099	-.00267	.00063	29.329	-.00018
Stddev	5.4	.00031	.0086	.00026	.0088	.00208	.00265	.091	.00010
%RSD	.48291	11.512	.41296	9.5930	.32432	77.895	418.93	.30960	54.402

#1	1113.2	.00290	2.0866	-.00292	2.7161	-.00120	-.00124	29.265	-.00011
#2	1120.9	.00247	2.0745	-.00255	2.7036	-.00414	.00250	29.394	-.00024

Check ?	Chk Warn	Chk Pass							
High Limit	500.00								
Low Limit	10.000								

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.3285	.00084	.00648	.00044	-.02860	.00481	.00836	.00399
Stddev	.0039	.00188	.00013	.00081	.03522	.00021	.00023	.00078
%RSD	.29189	222.66	2.0545	185.91	123.14	4.2793	2.8003	19.536

#1	1.3257	-.00048	.00639	-.00014	-.00370	.00496	.00853	.00344
#2	1.3312	.00217	.00657	.00101	-.05351	.00466	.00819	.00455

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5452.6	74924.	4993.0
Stddev	1.6	211.	28.2
%RSD	.02966	.28204	.56574

#1	5451.4	75073.	5013.0
#2	5453.7	74774.	4973.0

Sample Name: 280-70430-A-1-B SD@5 Acquired: 6/15/2015 20:12:08 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 281202 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00056	.06563	.00331	.24440	.13999	.00013	-0.00051	23.154	.00013
Stddev	.00059	.00059	.00137	.00001	.00008	.00000	.00039	.038	.00012
%RSD	106.82	.90614	41.407	.00313	.05820	2.2809	75.990	.16402	93.126
#1	-0.00098	.06521	.00234	.24441	.13993	.00013	-0.00024	23.181	.00004
#2	-0.00014	.06605	.00428	.24440	.14004	.00013	-0.00078	23.128	.00021

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00027	.00050	.00205	.27648	4.2937	.01749	21.697	.10791	.00051
Stddev	.00004	.00017	.00017	.00101	.0623	.00302	.017	.00003	.00022
%RSD	15.979	35.041	8.1379	.36503	1.4512	17.266	.07606	.02786	43.938
#1	.00030	.00037	.00194	.27577	4.3378	.01535	21.709	.10793	.00067
#2	.00024	.00062	.00217	.27720	4.2497	.01962	21.685	.10789	.00035

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	221.43	.00042	.40566	-0.00032	.54929	-0.00284	W -0.00690	5.7893	-0.0082
Stddev	.67	.00023	.00036	.00009	.00208	.00105	.00140	.0174	.00091
%RSD	.30101	55.170	.08815	28.911	.37782	36.843	20.240	.30095	110.06
#1	221.91	.00026	.40541	-0.00038	.55075	-0.00210	-0.00591	5.7770	-0.0018
#2	220.96	.00059	.40592	-0.00025	.54782	-0.00358	-0.00788	5.8017	-0.0147

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Warn Chk Pass Chk Pass
 High Limit 5.0000
 Low Limit -0.00500

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.26396	-0.00005	.00220	.00127	.00629	.00089	-0.00036	.00251
Stddev	.00004	.00058	.00005	.00043	.00981	.00102	.00002	.00150
%RSD	.01656	1229.2	2.1277	33.494	155.90	114.32	6.5568	59.526
#1	.26399	-0.00046	.00217	.00097	.01322	.00017	-0.00037	.00145
#2	.26393	.00036	.00223	.00157	-0.00064	.00162	-0.00034	.00357

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5810.2	80437.	4989.8
Stddev	6.3	264.	4.1
%RSD	.10822	.32842	.08138
#1	5814.6	80250.	4986.9
#2	5805.7	80624.	4992.6

Sample Name: 280-70430-A-1-C MS Acquired: 6/15/2015 20:14:45 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281202 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05271	2.2820	1.0129	1.9525	2.8569	.05069	1.9279	164.88	.10287
Stddev	.00042	.0014	.0005	.0002	.0169	.00016	.0053	.80	.00003
%RSD	.80419	.05918	.05148	.01217	.59279	.32165	.27390	.48680	.02875

#1	.05241	2.2829	1.0125	1.9524	2.8449	.05058	1.9242	164.32	.10285
#2	.05301	2.2810	1.0132	1.9527	2.8688	.05081	1.9316	165.45	.10290

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48161	.19887	.25930	2.4064	74.537	1.1490	156.03	1.0314	1.0442
Stddev	.00033	.00021	.00029	.0229	.424	.0071	.14	.0009	.0020
%RSD	.06954	.10696	.11306	.95160	.56930	.61919	.09036	.08296	.18868

#1	.48137	.19902	.25909	2.3902	74.237	1.1440	156.13	1.0320	1.0428
#2	.48185	.19872	.25951	2.4226	74.837	1.1540	155.93	1.0308	1.0456

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1157.6	.47859	12.760	.46555	4.7838	.48894	1.9998	39.407	1.9094
Stddev	5.6	.00028	.014	.00015	.0025	.00071	.0069	.101	.0007
%RSD	.48351	.05775	.11097	.03176	.05176	.14492	.34577	.25625	.03543

#1	1153.6	.47840	12.750	.46565	4.7856	.48944	1.9949	39.335	1.9090
#2	1161.6	.47879	12.770	.46545	4.7821	.48844	2.0047	39.478	1.9099

Check ?	Chk Warn	Chk Pass							
High Limit	500.00								
Low Limit	10.000								

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.3470	.99108	1.0548	1.7033	1.9907	.51175	.52229	.54538
Stddev	.0125	.00121	.0010	.0041	.0254	.00005	.00246	.00586
%RSD	.53391	.12199	.09478	.23815	1.2767	.01002	.47102	1.0745

#1	2.3381	.99194	1.0541	1.7005	2.0087	.51178	.52403	.54123
#2	2.3559	.99023	1.0555	1.7062	1.9727	.51171	.52055	.54952

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5419.4	74689.	4945.2
Stddev	7.1	128.	25.3
%RSD	.13097	.17115	.51121

#1	5424.4	74598.	4963.0
#2	5414.4	74779.	4927.3

Sample Name: 280-70430-A-1-D MSD Acquired: 6/15/2015 20:17:32 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281202 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05336	2.3097	1.0265	1.9875	2.9280	.05174	1.9482	169.31	.10427
Stddev	.00056	.0012	.0026	.0037	.0065	.00013	.0015	.19	.00012
%RSD	1.0453	.05287	.25616	.18833	.22035	.25417	.07548	.11278	.11075

#1	.05297	2.3088	1.0284	1.9849	2.9234	.05165	1.9472	169.17	.10435
#2	.05376	2.3105	1.0246	1.9902	2.9326	.05184	1.9493	169.44	.10419

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48724	.20149	.26396	2.4687	76.508	1.1750	159.60	1.0538	1.0586
Stddev	.00056	.00025	.00046	.0146	.223	.0017	.16	.0014	.0002
%RSD	.11483	.12592	.17320	.59124	.29196	.14693	.10165	.13553	.01850

#1	.48684	.20167	.26364	2.4584	76.350	1.1737	159.71	1.0548	1.0585
#2	.48763	.20131	.26428	2.4790	76.666	1.1762	159.48	1.0528	1.0587

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1194.7	.48421	12.943	.46975	4.8713	.50078	2.0314	40.611	1.9294
Stddev	1.0	.00002	.014	.00031	.0082	.00206	.0057	.102	.0013
%RSD	.08086	.00485	.10509	.06612	.16780	.41119	.27871	.25113	.06661

#1	1194.1	.48419	12.953	.46997	4.8655	.50223	2.0354	40.539	1.9285
#2	1195.4	.48422	12.933	.46953	4.8770	.49932	2.0274	40.683	1.9303

Check ?	Chk Warn	Chk Pass							
High Limit	500.00								
Low Limit	10.000								

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.4117	1.0059	1.0736	1.7304	2.0072	.51918	.53143	.55753
Stddev	.0047	.0014	.0015	.0011	.0333	.00163	.00032	.00197
%RSD	.19610	.14196	.13823	.06262	1.6589	.31382	.05931	.35276

#1	2.4084	1.0049	1.0746	1.7296	2.0308	.52033	.53165	.55614
#2	2.4150	1.0069	1.0725	1.7312	1.9837	.51802	.53121	.55892

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5400.8	74418.	4936.5
Stddev	3.7	254.	15.5
%RSD	.06799	.34179	.31455

#1	5398.2	74238.	4947.5
#2	5403.4	74598.	4925.6

Sample Name: 280-70430-A-2-D Acquired: 6/15/2015 20:20:19 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281202 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0059	1.3812	.00935	1.2724	.49044	.00026	-.00930	65.552	.00041
Stddev	.00003	.0004	.00250	.0018	.00245	.00009	.00295	.297	.00013
%RSD	5.7593	.02897	26.789	.14118	.50015	35.609	31.676	.45348	31.667

#1	-0.0061	1.3815	.00758	1.2737	.48871	.00032	-.01138	65.342	.00032
#2	-0.0056	1.3810	.01112	1.2712	.49218	.00019	-.00722	65.762	.00050

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00222	.00283	.00522	4.5965	20.461	.06509	69.744	.31820	.00228
Stddev	.00039	.00008	.00028	.0225	.118	.00184	.139	.00091	.00026
%RSD	17.750	2.7818	5.3667	.48904	.57832	2.8200	.19987	.28511	11.392

#1	.00194	.00278	.00542	4.5806	20.378	.06639	69.842	.31884	.00209
#2	.00249	.00289	.00502	4.6124	20.545	.06379	69.645	.31756	.00246

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1064.4	.00641	7.0772	-.00210	2.6854	-.00194	.00290	32.252	-.00086
Stddev	3.7	.00016	.0096	.00076	.0059	.00046	.00471	.103	.00046
%RSD	.35222	2.5094	.13514	36.406	.21826	23.624	162.28	.31914	53.421

#1	1061.7	.00629	7.0704	-.00156	2.6813	-.00226	.00623	32.179	-.00053
#2	1067.0	.00652	7.0840	-.00264	2.6895	-.00161	-.00043	32.325	-.00118

Check ?	Chk Warn	Chk Pass							
High Limit	500.00								
Low Limit	10.000								

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.75177	.00188	.05558	-.00046	.00857	.00591	.00511	.00449
Stddev	.00173	.00196	.00035	.00001	.00816	.00083	.00031	.00063
%RSD	.22986	104.07	.62666	2.4930	95.248	14.003	6.0725	14.042

#1	.75054	.00326	.05533	-.00046	.00280	.00649	.00489	.00404
#2	.75299	.00050	.05582	-.00047	.01434	.00532	.00533	.00493

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5567.8	75780.	5017.4
Stddev	1.4	163.	42.0
%RSD	.02493	.21480	.83744

#1	5566.8	75665.	5047.1
#2	5568.8	75895.	4987.7

Sample Name: 280-70430-A-3-B Acquired: 6/15/2015 20:23:15 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281202 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0047	.15861	.00535	.22573	.51034	.00018	-0.00471	89.633	.00029
Stddev	.00026	.00086	.00426	.00066	.00012	.00008	.00190	.213	.00007
%RSD	55.683	.54123	79.523	.29405	.02300	43.631	40.287	.23726	22.777

#1	-0.0028	.15800	.00836	.22620	.51025	.00012	-.00605	89.483	.00024
#2	-0.0065	.15921	.00234	.22526	.51042	.00024	-.00337	89.783	.00033

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0008	.00138	.00273	16.414	5.0725	.02594	31.703	.83278	.00258
Stddev	.00013	.00020	.00045	.017	.0073	.00007	.031	.00015	.00003
%RSD	157.01	14.449	16.538	.10122	.14371	.26149	.09927	.01858	1.3455

#1	.00001	.00124	.00305	16.402	5.0777	.02598	31.725	.83267	.00256
#2	-0.0017	.00152	.00241	16.425	5.0674	.02589	31.681	.83289	.00261

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	96.959	.00622	1.9164	.00218	1.2643	-.00242	-.00268	14.779	-.00072
Stddev	.155	.00017	.0047	.00175	.0003	.00237	.00449	.022	.00042
%RSD	.15986	2.7619	.24500	80.374	.02256	98.171	167.89	.14639	58.188

#1	97.069	.00610	1.9197	.00342	1.2641	-.00074	-.00586	14.795	-.00042
#2	96.850	.00634	1.9131	.00094	1.2645	-.00410	.00050	14.764	-.00101

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.53799	.00127	.00515	-.00088	.00309	.00301	.00145	.00467
Stddev	.00151	.00002	.00008	.00071	.02365	.00009	.00001	.00187
%RSD	.28074	1.4602	1.4931	80.046	766.61	3.0602	.75409	39.932

#1	.53692	.00128	.00521	-.00138	.01981	.00308	.00144	.00335
#2	.53906	.00126	.00510	-.00038	-.01364	.00295	.00145	.00599

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5932.8	82496.	5125.3
Stddev	2.3	52.	21.3
%RSD	.03948	.06317	.41585

#1	5931.2	82459.	5140.3
#2	5934.5	82533.	5110.2

Sample Name: 280-70430-A-4-B Acquired: 6/15/2015 20:25:49 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281202 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0140	1.8354	.00625	3.3363	1.6884	.00012	-0.00743	140.33	.00117
Stddev	.00072	.0061	.00268	.0081	.0042	.00007	.00133	.07	.00013
%RSD	51.598	.33296	42.883	.24223	.24859	52.692	17.907	.05293	10.961

#1	-0.0191	1.8398	.00815	3.3421	1.6854	.00017	-.00649	140.28	.00108
#2	-0.0089	1.8311	.00436	3.3306	1.6913	.00008	-.00837	140.38	.00126

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00188	.00262	.00576	3.3311	91.126	.15522	429.18	.25015	.00103
Stddev	.00046	.00010	.00009	.0085	.879	.00074	1.31	.00040	.00059
%RSD	24.380	3.7122	1.5319	.25543	.96502	.47642	.30472	.15826	57.191

#1	.00156	.00269	.00582	3.3372	90.504	.15574	428.26	.25043	.00061
#2	.00221	.00255	.00569	3.3251	91.748	.15470	430.11	.24987	.00144

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4630.1	.00284	2.9949	W -.00342	3.9075	-.00226	-.00358	30.475	-.00059
Stddev	8.8	.00047	.0041	.00001	.0130	.00129	.00106	.041	.00121
%RSD	.18924	16.449	.13687	.18009	.33198	56.810	29.752	.13563	206.50

#1	4623.9	.00317	2.9978	-.00341	3.8984	-.00317	-.00282	30.446	-.00144
#2	4636.3	.00251	2.9920	-.00342	3.9167	-.00135	-.00433	30.504	.00027

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit	500.00			10.000					
Low Limit	10.000			-.00300					

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.0787	.00395	.04781	.00143	.03768	.00651	.00774	.00411
Stddev	.0077	.00164	.00020	.00052	.00708	.00044	.00022	.00184
%RSD	.18940	41.520	.41802	36.026	18.780	6.8269	2.8516	44.664

#1	4.0732	.00279	.04795	.00180	.04269	.00619	.00758	.00281
#2	4.0841	.00511	.04766	.00107	.03268	.00682	.00789	.00541

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	4863.9	65416.	4786.6
Stddev	2.8	173.	9.1
%RSD	.05855	.26478	.19039

#1	4861.9	65539.	4793.0
#2	4865.9	65294.	4780.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00101	.25523	.00786	3.4225	1.9589	-0.00002	-0.00406	140.01	.00083
Stddev	.00084	.00189	.00255	.0013	.0039	.00017	.00544	.43	.00000
%RSD	83.115	.74090	32.500	.03926	.19963	907.38	134.05	.30449	.10370
#1	-0.00042	.25657	.00966	3.4215	1.9617	-0.00014	-0.00021	140.32	.00083
#2	-0.00160	.25389	.00605	3.4234	1.9561	.00010	-0.00791	139.71	.00083

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00175	.00094	.00427	4.6823	95.041	.15865	451.10	.10487	.00090
Stddev	.00020	.00014	.00027	.0079	.969	.00148	1.15	.00009	.00029
%RSD	11.686	15.233	6.2720	.16808	1.0193	.92982	.25533	.08406	31.649
#1	.00161	.00084	.00446	4.6879	94.356	.15760	451.92	.10481	.00070
#2	.00189	.00104	.00408	4.6768	95.726	.15969	450.29	.10493	.00110

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4805.7	.00205	5.5128	W -.00463	1.1730	-.00234	.00286	26.656	-.00175
Stddev	8.5	.00031	.0024	.00044	.0042	.00213	.00143	.004	.00158
%RSD	.17589	15.061	.04285	9.5860	.35671	90.809	50.220	.01678	90.208
#1	4811.7	.00227	5.5111	-.00494	1.1759	-.00084	.00387	26.659	-.00063
#2	4799.7	.00184	5.5145	-.00432	1.1700	-.00385	.00184	26.653	-.00286

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit	500.00			10.000					
Low Limit	10.000			-.00300					

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.2924	.00223	.00689	-.00013	-.02201	.00225	.00564	-.00195
Stddev	.0121	.00113	.00020	.00031	.03501	.00013	.00009	.00179
%RSD	.28214	50.961	2.8907	233.69	159.03	5.6949	1.6006	91.663
#1	4.3010	.00142	.00675	-.00035	.00274	.00216	.00557	-.00321
#2	4.2839	.00303	.00703	.00009	-.04677	.00235	.00570	-.00069

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	4849.6	64954.	4780.2
Stddev	2.3	104.	1.4
%RSD	.04671	.15994	.02989
#1	4848.0	64881.	4781.2
#2	4851.2	65028.	4779.2

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00016	51.035	-0.0434	.03165	-0.00001	.00010	1.0080	.01304	-0.00115	.00117	.00036	.01767	50.945
Stddev	.00025	.056	.00282	.00087	.00006	.00005	.0002	.00033	.00005	.00004	.00000	.00032	.206
%RSD	156.59	.10928	65.015	2.7584	737.36	48.107	.01757	2.5135	4.6531	3.0266	.14402	1.8312	.40401

#1	-0.00002	51.075	-0.00235	.03226	.00004	.00007	1.0079	.01327	-0.00112	.00120	.00036	.01789	51.090
#2	.00034	50.996	-0.00634	.03103	-0.00005	.00013	1.0082	.01281	-0.00119	.00115	.00036	.01744	50.799

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.07117	.00537	.00801	.00152	-0.00166	262.61	.00215	.00684	-0.00110	5.0725	.01264	.00293	.02282
Stddev	.07978	.00155	.00181	.00000	.00024	1.05	.00006	.00492	.00153	.0106	.00046	.00389	.00583
%RSD	112.10	28.861	22.588	.18681	14.576	.40151	2.5940	71.853	139.14	.20961	3.6673	132.70	25.552

#1	.12758	.00646	.00929	.00152	-0.00149	263.35	.00219	.01032	-0.00218	5.0801	.01297	.00018	.01870
#2	.01475	.00427	.00673	.00152	-0.00183	261.86	.00211	.00337	-0.00002	5.0650	.01232	.00568	.02695

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00024	.00067	4.8924	.00120	-0.00013	9.8901	.00171	-0.00084	.20952
Stddev	.00017	.00002	.0043	.00044	.00145	.0428	.00020	.00010	.00029
%RSD	72.887	3.3158	.08770	36.623	1098.3	.43286	11.484	11.432	.13737

#1	-0.00012	.00068	4.8955	.00151	.00089	9.9204	.00185	-0.00077	.20972
#2	-0.00036	.00065	4.8894	.00089	-0.00115	9.8599	.00157	-0.00091	.20931

Check ?	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5873.1	80926.	5046.8
Stddev	20.0	222.	17.4
%RSD	.34136	.27468	.34572

#1	5858.9	80768.	5034.4
#2	5887.3	81083.	5059.1

Sample Name: ccv-3330457 Acquired: 6/15/2015 20:34:33 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50959	.51540	.95833	.51783	.53267	.49739	-.05595	5.0426	.50864	.49575	.49364	.49970
Stddev	.00056	.00097	.00010	.00061	.00148	.00062	.00029	.0141	.00024	.00059	.00014	.00052
%RSD	.10896	.18842	.01094	.11753	.27845	.12564	.52044	.27887	.04772	.11851	.02799	.10400

#1	.50920	.51472	.95826	.51740	.53372	.49783	-.05574	5.0525	.50882	.49616	.49373	.49933
#2	.50999	.51609	.95841	.51826	.53162	.49695	-.05615	5.0326	.50847	.49533	.49354	.50006

Check ?	Chk Pass	None	Chk Pass									
Value Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.4314	48.872	1.0468	19.994	.50060	.49523	F 6.1404	.49782	.97754	1.0191	.01318	.99027
Stddev	.0133	.196	.0046	.015	.00035	.00025	.0310	.00035	.00261	.0012	.00113	.00290
%RSD	.54540	.40027	.44393	.07528	.06954	.05103	.50463	.07097	.26693	.11423	8.6120	.29310

#1	2.4407	49.010	1.0501	19.984	.50085	.49541	6.1623	.49757	.97939	1.0199	.01237	.99233
#2	2.4220	48.734	1.0435	20.005	.50036	.49505	6.1185	.49807	.97570	1.0183	.01398	.98822

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass					
Value Range							5.0000 10.000%					

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.96763	4.9566	.98578	.50662	.01855	.50994	1.0173	-.00580	.48719	.50044	.49463
Stddev	.00048	.0074	.00061	.00153	.00057	.00028	.0001	.01844	.00039	.00106	.00090
%RSD	.04957	.15011	.06229	.30226	3.0874	.05529	.01120	317.82	.07942	.21179	.18098

#1	.96729	4.9619	.98622	.50770	.01895	.51014	1.0172	.00724	.48691	.49969	.49527
#2	.96797	4.9514	.98535	.50554	.01814	.50974	1.0174	-.01885	.48746	.50119	.49400

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value Range											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6018.0	83779.	5090.8
Stddev	15.0	57.	11.1
%RSD	.24904	.06814	.21892

#1	6028.6	83819.	5083.0
#2	6007.4	83738.	5098.7

Sample Name: CCB Acquired: 6/15/2015 20:37:00 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00000	-.00019	.00301	F .02171	-.00028	.00011	.00077	.01160	.00012	.00001	.00009	.00035
Stddev	.00093	.00028	.00004	.00073	.00001	.00015	.00044	.00181	.00003	.00002	.00026	.00054
%RSD	37804.	147.15	1.4780	3.3799	2.1912	132.57	57.948	15.605	22.476	153.28	277.90	155.25

#1	-.00066	.00001	.00298	.02222	-.00028	.00001	.00045	.01288	.00014	-.00000	-.00009	-.00003
#2	.00066	-.00039	.00305	.02119	-.00027	.00022	.00108	.01032	.00010	.00002	.00028	.00073

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.00312								
Low Limit				-.00312								

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01111	-.03652	W .00354	.00346	-.00006	.00092	F .75077	-.00033	.00394	-.00075	.01582	-.00094
Stddev	.00018	.00556	.00164	.00319	.00000	.00016	.01165	.00036	.00111	.00151	.00064	.00050
%RSD	1.6173	15.221	46.298	92.201	1.5889	17.655	1.5517	109.74	28.122	200.92	4.0607	53.122

#1	.01098	-.04045	.00238	.00572	-.00006	.00080	.75901	-.00059	.00316	-.00182	.01537	-.00129
#2	.01124	-.03259	.00469	.00121	-.00006	.00103	.74253	-.00007	.00473	.00032	.01628	-.00059

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit			.00261				.20152					
Low Limit			-.00261				-.20152					

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00104	.00946	.00003	.00005	.00089	.00013	.00038	-.01404	-.00087	-.00321	.00099
Stddev	.00063	.00054	.00008	.00009	.00270	.00019	.00068	.00331	.00061	.00038	.00180
%RSD	60.342	5.7343	241.58	161.14	302.47	142.98	182.18	23.610	69.527	11.719	181.36

#1	.00060	.00984	.00009	.00011	.00280	-.00000	.00086	-.01169	-.00044	-.00348	-.00028
#2	.00148	.00908	-.00002	-.00001	-.00102	.00027	-.00011	-.01638	-.00130	-.00294	.00226

Check ?	Chk Pass										
High Limit											
Low Limit											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6075.2	85160.	5060.5
Stddev	.1	10.	1.7
%RSD	.00109	.01216	.03440

#1	6075.2	85167.	5061.7
#2	6075.3	85152.	5059.3

Sample Name: CCVL3330451 Acquired: 6/15/2015 20:39:41 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00974	.10766	.01524	.11787	.01058	.00118	.11783	.21942	.00546	.01022	.01018	.01605
Stddev	.00018	.00004	.00080	.00030	.00006	.00012	.00053	.00179	.00017	.00028	.00002	.00017
%RSD	1.8826	.03382	5.2486	.25519	.52521	10.468	.45147	.81688	3.2001	2.6989	.16294	1.0749

#1	.00987	.10769	.01468	.11766	.01062	.00127	.11820	.21815	.00558	.01002	.01019	.01593
#2	.00961	.10763	.01581	.11808	.01054	.00110	.11745	.22068	.00534	.01041	.01017	.01617

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09640	3.0559	F .01401	.22224	.01056	.02031	F 1.6850	.04137	2.8664	.00823	.01266	W .00784
Stddev	.00230	.0509	.00038	.00328	.00002	.00007	.0039	.00001	.0026	.00006	.00281	.00067
%RSD	2.3824	1.6659	2.7068	1.4774	.17115	.34278	.23169	.02430	.09060	.73146	22.178	8.5137

#1	.09478	3.0919	.01428	.21992	.01057	.02026	1.6822	.04137	2.8645	.00819	.01465	.00831
#2	.09802	3.0199	.01374	.22457	.01054	.02036	1.6877	.04138	2.8682	.00828	.01068	.00737

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Warn
Value			.01000				1.0000					.01000
Range			30.000%				30.000%					-20.000%

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01414	.52871	.10220	.01030	.01508	.00986	.01618	.05114	.00917	.02064	.01772
Stddev	.00284	.00353	.00078	.00002	.00028	.00013	.00126	.02019	.00047	.00023	.00272
%RSD	20.058	.66792	.75878	.21056	1.8614	1.2805	7.7980	39.487	5.1281	1.1087	15.354

#1	.01214	.53121	.10275	.01031	.01488	.00995	.01529	.06542	.00883	.02048	.01580
#2	.01615	.52622	.10166	.01028	.01528	.00977	.01708	.03686	.00950	.02080	.01965

Check ?	Chk Pass										
Value											
Range											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6126.7	85502.	5102.7
Stddev	3.8	7.	15.5
%RSD	.06221	.00794	.30319

#1	6129.4	85497.	5113.6
#2	6124.1	85507.	5091.7

Sample Name: 280-70430-A-6-B Acquired: 6/15/2015 20:42:18 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281202 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0116	.29627	.00681	3.1601	2.0244	.00009	-0.0196	142.43	.00090
Stddev	.00001	.00146	.00027	.0040	.0041	.00002	.00178	.10	.00021
%RSD	.77076	.49157	3.9520	.12577	.20068	17.029	90.985	.06741	23.588
#1	-.00117	.29730	.00700	3.1573	2.0273	.00010	-.00070	142.50	.00075
#2	-.00115	.29524	.00662	3.1629	2.0216	.00008	-.00322	142.36	.00106

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00241	.00087	.00422	1.2247	82.415	.14551	420.62	.12421	.00082
Stddev	.00007	.00006	.00039	.0020	.372	.00185	1.53	.00024	.00013
%RSD	3.0488	6.6553	9.1566	.16511	.45195	1.2738	.36355	.19216	15.396
#1	.00236	.00083	.00449	1.2262	82.152	.14682	421.70	.12438	.00073
#2	.00247	.00091	.00394	1.2233	82.678	.14420	419.54	.12404	.00090

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4357.8	.00332	2.9431	W -.00491	1.1173	-.00177	-.00159	25.882	-.00107
Stddev	6.7	.00030	.0044	.00121	.0092	.00336	.00075	.075	.00012
%RSD	.15344	9.0255	.14817	24.641	.82641	189.79	47.430	.28871	11.368
#1	4362.6	.00353	2.9400	-.00577	1.1108	-.00414	-.00105	25.934	-.00115
#2	4353.1	.00311	2.9462	-.00406	1.1238	.00060	-.00212	25.829	-.00098

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit	500.00			10.000					
Low Limit	10.000			-.00300					

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.9581	.00309	.00956	.00036	-.00991	.00914	.00831	-.00054
Stddev	.0098	.00030	.00011	.00049	.04894	.00124	.00091	.00097
%RSD	.24874	9.7205	1.1432	136.70	493.93	13.617	10.896	178.99
#1	3.9651	.00288	.00948	.00001	-.04451	.01002	.00767	.00014
#2	3.9512	.00330	.00964	.00071	.02470	.00826	.00895	-.00123

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4909.7	65772.	4839.7
Stddev	3.4	81.	5.2
%RSD	.06856	.12257	.10644
#1	4907.3	65829.	4836.1
#2	4912.1	65715.	4843.3

Sample Name: 280-70430-A-7-B Acquired: 6/15/2015 20:45:24 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 281202 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0092	.01425	.00303	.70861	.29267	.00015	-0.00596	163.56	.00044
Stddev	.00036	.00073	.00287	.00017	.00046	.00005	.00058	.00	.00006
%RSD	39.562	5.1523	94.703	.02352	.15644	33.573	9.6501	.00105	14.531
#1	-.00117	.01477	.00506	.70849	.29300	.00019	-.00556	163.56	.00048
#2	-.00066	.01373	.00100	.70872	.29235	.00011	-.00637	163.56	.00039

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00042	.00062	.00510	3.9222	11.370	.06941	98.741	1.1051	.00052
Stddev	.00001	.00010	.00014	.0055	.000	.00255	.296	.0032	.00021
%RSD	2.4697	16.848	2.8151	.13953	.00284	3.6759	.30014	.28584	39.800
#1	.00041	.00069	.00520	3.9261	11.370	.07121	98.951	1.1073	.00037
#2	.00043	.00054	.00500	3.9184	11.369	.06760	98.532	1.1029	.00066

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 795.45	.00232	.36598	-0.00229	F 204.80	-0.00254	-0.00143	23.389	-0.00100
Stddev	.38	.00008	.00368	.00076	.31	.00272	.00499	.022	.00029
%RSD	.04805	3.6349	1.0045	33.190	.15131	107.21	349.99	.09389	28.950
#1	795.18	.00226	.36858	-.00283	204.58	-.00061	-.00496	23.404	-.00121
#2	795.72	.00238	.36339	-.00175	205.02	-.00446	.00210	23.373	-.00080

Check ? High Limit Low Limit
 Chk Warn Chk Pass Chk Pass Chk Pass Chk Fail Chk Pass Chk Pass Chk Pass Chk Pass
 500.00 200.00
 10.000 -0.02000

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.1511	-0.00053	.00047	-0.00065	.00131	.00123	.01983	.00278
Stddev	.0010	.00240	.00004	.00144	.01476	.00140	.00006	.00269
%RSD	.08245	454.78	9.2618	222.96	1123.5	113.70	.28295	96.803
#1	1.1518	.00117	.00050	.00037	-.00912	.00221	.01987	.00088
#2	1.1505	-.00223	.00044	-.00166	.01175	.00024	.01979	.00468

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	5570.8	75910.	5074.2
Stddev	2.2	556.	9.0
%RSD	.04028	.73198	.17747
#1	5572.4	75517.	5080.6
#2	5569.2	76302.	5067.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0143	.19499	.01229	3.5452	2.1344	.00012	-0.00319	129.62	.00067
Stddev	.00024	.00019	.00083	.0020	.0017	.00015	.00076	.09	.00004
%RSD	17.016	.09668	6.7501	.05585	.08017	118.08	23.911	.07046	6.3203

#1	-0.0126	.19512	.01170	3.5466	2.1356	.00002	-0.00373	129.68	.00070
#2	-0.0161	.19485	.01288	3.5438	2.1332	.00023	-0.00265	129.55	.00064

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00156	.00067	.00418	8.8051	89.141	.14401	434.75	.10089	.00028
Stddev	.00003	.00006	.00022	.0161	.647	.00196	.12	.00018	.00048
%RSD	2.0396	8.7690	5.2528	.18252	.72590	1.3611	.02665	.18320	170.58

#1	.00158	.00063	.00403	8.8164	88.683	.14263	434.67	.10102	-0.0006
#2	.00154	.00072	.00434	8.7937	89.598	.14540	434.84	.10076	.00062

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4700.4	.00092	7.1375	W -.00404	1.0999	-.00243	-.00087	29.214	-.00140
Stddev	.9	.00060	.0093	.00159	.0100	.00076	.00359	.053	.00052
%RSD	.02011	64.685	.13043	39.477	.90805	31.126	411.34	.18088	36.986

#1	4701.1	.00135	7.1310	-0.00291	1.1070	-0.00190	-0.00341	29.252	-0.00103
#2	4699.7	.00050	7.1441	-0.00516	1.0928	-0.00297	.00167	29.177	-0.00176

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit	500.00			10.000					
Low Limit	10.000			-0.00300					

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.1639	.00117	.00571	-.00047	-.02141	.00179	.00236	.00044
Stddev	.0050	.00190	.00023	.00048	.02519	.00095	.00081	.00115
%RSD	.12115	162.76	4.0651	100.78	117.66	53.140	34.141	263.03

#1	4.1675	-0.0018	.00555	-0.00081	-.03922	.00246	.00293	.00125
#2	4.1604	.00251	.00588	-0.0014	-.00360	.00112	.00179	-.00038

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	4899.9	65236.	4859.5
Stddev	8.6	23.	19.6
%RSD	.17590	.03515	.40328

#1	4893.8	65219.	4845.7
#2	4906.0	65252.	4873.4

Sample Name: 280-70430-A-9-B Acquired: 6/15/2015 20:51:26 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 281202 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0068	.17653	.00313	3.4227	1.4926	.00012	-.00272	137.01	.00061
Stddev	.00057	.00076	.00250	.0075	.0025	.00004	.00214	.03	.00023
%RSD	83.958	.43155	79.763	.21970	.17007	35.854	78.687	.01961	37.466

#1	-.00108	.17707	.00490	3.4173	1.4908	.00009	-.00423	136.99	.00077
#2	-.00028	.17599	.00137	3.4280	1.4944	.00015	-.00121	137.03	.00045

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00163	.00084	.00381	4.1227	82.446	.14028	423.55	.11611	.00038
Stddev	.00026	.00033	.00004	.0095	1.029	.00337	.74	.00025	.00009
%RSD	16.030	39.217	.94759	.23146	1.2476	2.4024	.17565	.21883	24.801

#1	.00181	.00107	.00378	4.1159	81.719	.13790	423.03	.11593	.00045
#2	.00144	.00061	.00383	4.1294	83.173	.14266	424.08	.11629	.00031

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4576.8	.00152	4.2814	W -.00344	1.0043	-.00246	-.00185	29.083	-.00170
Stddev	7.5	.00039	.0076	.00014	.0045	.00056	.00271	.005	.00064
%RSD	.16422	25.570	.17874	4.1603	.45194	22.730	146.12	.01722	37.676

#1	4571.5	.00124	4.2760	-.00354	1.0011	-.00206	.00006	29.087	-.00125
#2	4582.1	.00179	4.2868	-.00334	1.0075	-.00285	-.00377	29.080	-.00216

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit	500.00			10.000					
Low Limit	10.000			-.00300					

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.0683	.00093	.00510	-.00016	-.00479	.00167	.00119	.00346
Stddev	.0073	.00009	.00021	.00134	.04144	.00087	.00011	.00198
%RSD	.17977	10.022	4.0544	828.61	865.23	52.198	9.3574	57.150

#1	4.0631	.00086	.00525	-.00111	.02451	.00105	.00111	.00206
#2	4.0735	.00099	.00496	.00079	-.03409	.00228	.00126	.00486

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4905.2	65322.	4847.0
Stddev	12.0	88.	6.9
%RSD	.24513	.13546	.14316

#1	4913.7	65259.	4851.9
#2	4896.7	65384.	4842.1

Sample Name: 280-70430-A-10-B Acquired: 6/15/2015 20:54:33 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 281202 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0054	.01334	.00188	.02061	-0.00083	-0.00000	.00127	.01946	.00010
Stddev	.00070	.00028	.00050	.00022	.00006	.00010	.00138	.00316	.00012
%RSD	128.77	2.1279	26.749	1.0607	7.5275	4032.5	108.85	16.243	116.96

#1	-0.0104	.01314	.00223	.02076	-0.00087	.00007	.00029	.01722	.00019
#2	-0.00005	.01354	.00152	.02046	-0.00079	-0.00007	.00225	.02170	.00002

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00029	.00005	.00114	.04661	.07155	.00303	.01328	.00027	.00031
Stddev	.00002	.00011	.00025	.00019	.06783	.00177	.00017	.00002	.00003
%RSD	8.6128	220.78	22.019	.40048	94.789	58.229	1.3102	7.7570	11.210

#1	-0.00030	-0.00003	.00131	.04674	.02359	.00178	.01315	.00028	.00033
#2	-0.00027	.00012	.00096	.04648	.11951	.00428	.01340	.00025	.00028

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.1588	.00006	.00435	-0.00140	.03155	-0.00169	-0.00250	.00599	-0.00033
Stddev	.1082	.00013	.00035	.00095	.00162	.00193	.00073	.00662	.00081
%RSD	5.0098	221.95	8.1312	68.015	5.1421	114.01	29.372	110.41	247.37

#1	2.2353	.00015	.00410	-0.00073	.03040	-0.00033	-0.00198	.00131	-0.00090
#2	2.0824	-0.00003	.00460	-0.00207	.03269	-0.00306	-0.00302	.01067	.00024

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00005	.00200	.00021	-0.00051	-0.04796	-0.00109	-0.00220	.00056
Stddev	.00003	.00120	.00027	.00106	.03635	.00005	.00006	.00022
%RSD	69.568	59.802	132.44	209.50	75.791	4.7433	2.5435	40.013

#1	.00002	.00115	.00040	.00024	-.02226	-.00105	-.00216	.00040
#2	.00007	.00285	.00001	-.00126	-.07366	-.00113	-.00224	.00072

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6206.4	86995.	5230.8
Stddev	12.7	122.	5.6
%RSD	.20475	.13969	.10790

#1	6215.4	87081.	5234.8
#2	6197.4	86909.	5226.8

Sample Name: 280-70430-A-11-B Acquired: 6/15/2015 20:57:13 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 281202 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0083	.00211	-0.00175	.01879	-0.00055	.00014	-0.00071	.02531	.00011
Stddev	.00066	.00012	.00303	.00074	.00045	.00005	.00095	.00160	.00009
%RSD	79.494	5.6606	173.57	3.9352	82.364	40.453	133.73	6.3357	84.749

#1	-0.00036	.00220	.00040	.01931	-0.00023	.00010	-0.00004	.02644	.00004
#2	-0.00130	.00203	-.00389	.01827	-0.00086	.00017	-0.00139	.02418	.00018

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00010	.00002	.00089	-0.00132	-0.05930	.00289	.00925	.00011	.00006
Stddev	.00011	.00016	.00033	.00230	.02560	.00077	.00115	.00006	.00020
%RSD	107.60	886.28	37.165	173.61	43.168	26.801	12.468	54.340	319.09

#1	-0.00002	.00013	.00065	-.00295	-.04120	.00234	.01006	.00015	-.00008
#2	-0.00018	-.00010	.00112	.00030	-.07740	.00343	.00843	.00007	.00020

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.2315	.00024	.00239	-0.00161	.03010	-0.00228	-0.00267	.02031	.00000
Stddev	.0159	.00032	.00331	.00074	.00119	.00147	.00195	.00523	.00017
%RSD	1.2881	134.80	138.24	46.325	3.9550	64.301	73.035	25.743	12508.

#1	1.2427	.00047	.00473	-.00108	.02926	-.00124	-.00129	.02401	.00012
#2	1.2202	.00001	.00005	-.00213	.03094	-.00332	-.00404	.01661	-.00012

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00016	.00006	.00017	-0.00279	.00331	-0.00057	-0.00098	.00116
Stddev	.00007	.00127	.00016	.00112	.03525	.00024	.00018	.00398
%RSD	45.396	1969.0	91.821	40.313	1066.4	41.480	17.952	342.26

#1	.00022	.00096	.00006	-.00359	-.02162	-.00074	-.00110	-.00165
#2	.00011	-.00083	.00029	-.00199	.02823	-.00041	-.00086	.00398

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6206.8	86775.	5244.2
Stddev	22.7	81.	7.6
%RSD	.36555	.09360	.14515

#1	6222.8	86833.	5249.6
#2	6190.7	86718.	5238.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0126	.02799	.00333	.89091	.55952	.00005	.00006	185.84	.00025
Stddev	.00012	.00110	.00243	.00266	.00288	.00008	.00485	1.12	.00036
%RSD	9.3256	3.9148	73.161	.29833	.51389	167.14	7656.6	.60099	147.15
#1	-.00135	.02876	.00505	.88903	.56156	.00011	.00349	186.63	.00050
#2	-.00118	.02721	.00161	.89279	.55749	-.00001	-.00336	185.05	-.00001

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00053	.00046	.00455	2.5299	11.023	.07911	116.10	.89873	.00385
Stddev	.00015	.00035	.00009	.0209	.045	.00008	.23	.00136	.00005
%RSD	27.646	77.386	1.9556	.82717	.40650	.10713	.19708	.15084	1.1682
#1	.00042	.00071	.00461	2.5447	10.991	.07905	116.26	.89969	.00388
#2	.00063	.00021	.00449	2.5151	11.055	.07917	115.94	.89777	.00382

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1151.9	.00217	.61601	-.00198	23.261	-.00237	-.00068	20.838	-.00096
Stddev	6.1	.00002	.00047	.00079	.022	.00081	.00209	.168	.00015
%RSD	.53050	1.0993	.07567	39.882	.09662	34.130	307.95	.80615	15.395
#1	1156.2	.00219	.61634	-.00142	23.245	-.00180	.00080	20.957	-.00085
#2	1147.6	.00215	.61568	-.00253	23.277	-.00294	-.00216	20.719	-.00106

Check ?	Chk Warn	Chk Pass							
High Limit	500.00								
Low Limit	10.000								

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.4320	-.00001	.00135	.00013	-.01756	.00091	.00493	-.00026
Stddev	.0076	.00146	.00058	.00044	.02945	.00001	.00013	.00131
%RSD	.53440	11253.	42.711	327.59	167.69	.92159	2.5395	495.44
#1	1.4374	-.00104	.00094	-.00018	-.03839	.00090	.00502	-.00119
#2	1.4266	.00102	.00175	.00045	.00326	.00091	.00485	.00066

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5442.8	73614.	4986.1
Stddev	11.6	32.	30.6
%RSD	.21345	.04338	.61294
#1	5451.0	73637.	4964.5
#2	5434.6	73592.	5007.7

Sample Name: 280-70430-A-13-B Acquired: 6/15/2015 21:02:50 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 281202 6010B

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0169	5.6009	.02929	2.7234	2.9505	.00028	W - .01915	180.70	.00059
Stddev	.00057	.0205	.00145	.0019	.0107	.00015	.00082	.70	.00000
%RSD	33.753	.36613	4.9443	.06891	.36078	51.619	4.2971	.38961	.22786

#1	-0.0128	5.6154	.02827	2.7220	2.9581	.00018	-.01974	181.20	.00059
#2	-0.0209	5.5864	.03031	2.7247	2.9430	.00039	-.01857	180.20	.00059

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass					
High Limit							3.0000		
Low Limit							-.01000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00310	.00649	.01200	20.344	65.836	.12894	399.79	.42125	.00038
Stddev	.00016	.00029	.00070	.082	.189	.00055	.99	.00037	.00003
%RSD	5.1547	4.4675	5.8280	.40437	.28702	.42678	.24694	.08798	8.5934

#1	.00299	.00629	.01249	20.402	65.702	.12933	400.48	.42151	.00040
#2	.00321	.00670	.01150	20.285	65.970	.12856	399.09	.42099	.00036

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4060.9	.00796	5.2046	-.00122	1.2025	-.00233	-.00294	40.541	-.00068
Stddev	14.8	.00007	.0049	.00024	.0057	.00013	.00495	.199	.00189
%RSD	.36406	.82578	.09407	19.875	.47030	5.5475	168.21	.49137	279.84

#1	4071.4	.00800	5.2080	-.00139	1.2065	-.00242	.00056	40.682	.00066
#2	4050.5	.00791	5.2011	-.00105	1.1985	-.00224	-.00644	40.400	-.00201

Check ?	Chk Warn	Chk Pass							
High Limit	500.00								
Low Limit	10.000								

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.1954	.00632	.13079	.00028	-.04740	.01587	.04181	.00861
Stddev	.0169	.00049	.00021	.00169	.02889	.00062	.00052	.00029
%RSD	.40306	7.7540	.15950	615.11	60.944	3.9068	1.2526	3.3122

#1	4.2074	.00667	.13064	.00147	-.06782	.01543	.04144	.00841
#2	4.1835	.00597	.13094	-.00092	-.02697	.01631	.04218	.00882

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5001.5	66842.	4885.1
Stddev	2.1	86.	24.2
%RSD	.04108	.12921	.49481

#1	5002.9	66781.	4868.0
#2	5000.0	66903.	4902.2

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00120	50.100	-.00408	.01949	-.00035	.00002	.99488	.01233	-.00120	.00100	.00028	.01936	49.898
Stddev	.00050	.065	.00026	.00079	.00062	.00001	.00113	.00312	.00002	.00018	.00021	.00052	.097
%RSD	41.363	.13006	6.3312	4.0431	174.04	33.692	.11407	25.280	1.6200	18.031	77.364	2.6645	.19522

#1	.00085	50.146	-.00426	.02005	.00008	.00003	.99569	.01013	-.00121	.00113	.00013	.01972	49.967
#2	.00156	50.054	-.00390	.01893	-.00079	.00002	.99408	.01454	-.00118	.00087	.00043	.01899	49.829

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01371	.00624	.00414	.00157	-.00160	259.85	.00228	.00789	-.00174	4.9826	.01187	.00387	.02351
Stddev	.04633	.00101	.00242	.00001	.00002	1.72	.00040	.00155	.00006	.0008	.00021	.00034	.01685
%RSD	337.96	16.205	58.359	.63578	1.1889	.66262	17.557	19.688	3.3821	.01628	1.7560	8.8030	71.692

#1	.04647	.00553	.00243	.00156	-.00158	261.07	.00257	.00898	-.00178	4.9831	.01172	.00363	.01159
#2	-.01905	.00696	.00585	.00157	-.00161	258.63	.00200	.00679	-.00170	4.9820	.01201	.00412	.03543

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00009	.00047	4.8136	-.00002	-.00214	9.7778	.00222	-.00094	.21477
Stddev	.00077	.00014	.0185	.00006	.00050	.0054	.00020	.00009	.00014
%RSD	877.11	29.313	.38524	264.59	23.113	.05493	9.0193	9.7868	.06633

#1	-.00064	.00037	4.8267	.00002	-.00179	9.7740	.00208	-.00087	.21467
#2	.00046	.00057	4.8005	-.00007	-.00249	9.7816	.00236	-.00100	.21488

Check ?	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5895.7	80998.	5088.9
Stddev	9.7	94.	.6
%RSD	.16392	.11579	.01175

#1	5888.8	80931.	5088.4
#2	5902.5	81064.	5089.3

Sample Name: ccv-3330457 Acquired: 6/15/2015 21:08:30 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50422	.50771	.93801	.50332	.53829	.49560	-.05667	4.9993	.51257	.48556	.48397	.49226
Stddev	.00095	.00002	.00067	.00060	.00248	.00186	.00320	.0103	.00092	.00039	.00033	.00010
%RSD	.18869	.00457	.07158	.11971	.46087	.37617	5.6483	.20622	.18007	.07982	.06768	.02108

#1	.50355	.50770	.93848	.50289	.54005	.49691	-.05893	5.0066	.51191	.48529	.48374	.49219
#2	.50489	.50773	.93753	.50374	.53654	.49428	-.05441	4.9920	.51322	.48584	.48420	.49233

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.3715	47.793	1.0377	20.125	.50009	.48576	F 6.2002	.48647	.95128	1.0159	-.00235	.98151
Stddev	.0091	.150	.0005	.024	.00095	.00040	.0414	.00033	.00093	.0028	.00760	.00173
%RSD	.38304	.31330	.05068	.11781	.19089	.08255	.66800	.06797	.09726	.27624	322.70	.17609

#1	2.3779	47.899	1.0380	20.142	.50077	.48605	6.2295	.48624	.95193	1.0140	-.00773	.98029
#2	2.3651	47.688	1.0373	20.108	.49942	.48548	6.1709	.48670	.95062	1.0179	.00302	.98273

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass					
Value							5.0000					
Range							10.000%					

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.94309	4.9554	.96767	.49805	.01819	.51099	1.0096	.04383	.48633	.50138	.48496
Stddev	.00023	.0302	.00104	.00188	.00075	.00072	.0010	.01374	.00039	.00148	.00200
%RSD	.02475	.61011	.10722	.37720	4.1164	.14050	.10006	31.342	.07924	.29540	.41197

#1	.94325	4.9340	.96694	.49938	.01872	.51049	1.0104	.05355	.48660	.50243	.48355
#2	.94292	4.9768	.96841	.49672	.01766	.51150	1.0089	.03412	.48605	.50033	.48637

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6048.6	83198.	5053.2
Stddev	9.6	183.	19.3
%RSD	.15918	.21962	.38222

#1	6055.4	83069.	5039.5
#2	6041.8	83327.	5066.9

Sample Name: CCB Acquired: 6/15/2015 21:10:55 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0052	.00890	.00135	F .01205	-0.00034	-0.00004	-0.00017	.00847	-0.00000	-0.00011	.00015	.00093
Stddev	.00005	.00019	.00110	.00143	.00007	.00005	.00072	.00119	.00014	.00006	.00007	.00040
%RSD	10.030	2.1820	81.543	11.840	19.783	109.33	424.65	13.995	5290.0	57.271	47.616	42.590

#1	-0.00056	.00903	.00212	.01306	-0.00039	-0.00008	.00034	.00763	.00010	-0.00016	.00020	.00065
#2	-0.00049	.00876	.00057	.01104	-0.00030	-0.00001	-0.00068	.00931	-0.00010	-0.00007	.00010	.00121

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.00312								
Low Limit				-.00312								

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00273	-0.09389	.00201	.00247	.00006	.00131	F .81027	.00024	.00106	-0.00078	.00106	-0.00032
Stddev	.00195	.01811	.00133	.00175	.00005	.00024	.00827	.00044	.00093	.00007	.00254	.00038
%RSD	71.374	19.288	65.935	70.786	85.758	18.152	1.0211	186.48	88.119	8.6376	239.00	118.20

#1	.00411	-.08109	.00107	.00124	.00009	.00114	.81612	.00055	.00172	-.00083	-.00073	-.00059
#2	.00135	-.10670	.00295	.00371	.00002	.00148	.80442	-.00008	.00040	-.00074	.00286	-.00005

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass					
High Limit							.20152					
Low Limit							-.20152					

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00121	-0.00468	-0.00049	-0.00002	.00228	.00015	-0.00033	.00063	-0.00082	-0.00312	.00118
Stddev	.00063	.00740	.00071	.00010	.00120	.00002	.00051	.04268	.00020	.00020	.00201
%RSD	52.186	158.24	147.02	509.95	52.390	15.774	153.80	6779.1	23.960	6.3438	169.80

#1	-0.00165	.00056	.00002	-.00009	.00313	.00013	.00003	-.02955	-.00096	-.00298	.00261
#2	-0.00076	-.00991	-.00099	.00005	.00144	.00017	-.00069	.03081	-.00068	-.00326	-.00024

Check ?	Chk Pass										
High Limit											
Low Limit											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6128.2	85349.	5067.6
Stddev	16.8	508.	32.0
%RSD	.27400	.59531	.63114

#1	6116.3	84989.	5090.2
#2	6140.1	85708.	5045.0

Sample Name: CCVL3330451 Acquired: 6/15/2015 21:13:35 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00923	.10649	.01465	.10942	.01025	.00110	.11644	.21977	.00545	.01006	.01009	.01593
Stddev	.00054	.00050	.00314	.00002	.00034	.00002	.00264	.00213	.00003	.00018	.00007	.00011
%RSD	5.9026	.47328	21.451	.02087	3.3609	1.6855	2.2688	.96699	.62292	1.8339	.72074	.69929

#1	.00884	.10685	.01243	.10943	.01000	.00109	.11831	.22127	.00547	.00993	.01004	.01601
#2	.00961	.10613	.01687	.10940	.01049	.00112	.11457	.21827	.00543	.01019	.01014	.01585

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09446	2.9250	W .01248	.22048	.01051	.01971	F 1.7504	.04091	2.8226	.00855	.00217	.00812
Stddev	.00074	.0115	.00087	.00086	.00000	.00011	.0221	.00003	.0100	.00085	.00153	.00025
%RSD	.77853	.39352	6.9501	.38872	.03970	.54998	1.2645	.06623	.35564	9.9749	70.471	3.0200

#1	.09498	2.9169	.01309	.21987	.01051	.01978	1.7661	.04089	2.8297	.00915	.00109	.00829
#2	.09394	2.9331	.01187	.22108	.01052	.01963	1.7348	.04093	2.8155	.00795	.00325	.00794

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value			.01000				1.0000					
Range			20.000%				30.000%					

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01233	.50568	.09957	.01033	.01447	.01037	.01623	F .03616	.00881	.02017	.01460
Stddev	.00111	.00233	.00024	.00004	.00058	.00012	.00072	.01500	.00004	.00000	.00061
%RSD	9.0060	.46133	.24273	.37005	3.9784	1.1237	4.4156	41.495	.48052	.01931	4.1800

#1	.01154	.50403	.09974	.01030	.01488	.01029	.01573	.04677	.00878	.02016	.01504
#2	.01311	.50733	.09940	.01035	.01407	.01045	.01674	.02555	.00884	.02017	.01417

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass						
Value								.06000			
Range								-30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6172.4	85791.	5139.1
Stddev	11.3	97.	21.7
%RSD	.18282	.11300	.42207

#1	6164.5	85860.	5123.8
#2	6180.4	85723.	5154.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0076	.00260	.00179	F .00962	-0.00037	.00009	.00191	W .03561	.00022
Stddev	.00053	.00043	.00261	.00025	.00015	.00000	.00430	.00024	.00004
%RSD	70.246	16.413	145.82	2.6075	38.949	3.8186	224.30	.67722	17.539

#1	-0.00038	.00230	-0.00006	.00980	-0.00027	.00008	-0.00112	.03544	.00019
#2	-0.00113	.00291	.00363	.00944	-0.00048	.00009	.00495	.03578	.00024

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit				.00343				.03450	
Low Limit				-.00343				-.03450	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00041	.00024	W .00166	.00375	-0.09735	W .00458	.00725	.00012	.00030
Stddev	.00003	.00003	.00014	.00315	.03129	.00052	.00186	.00005	.00034
%RSD	7.7088	10.720	8.2076	84.102	32.142	11.408	25.633	41.341	112.57

#1	-0.00039	.00025	.00156	.00152	-.07522	.00495	.00856	.00009	.00053
#2	-0.00044	.00022	.00175	.00598	-.11947	.00421	.00593	.00016	.00006

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit			.00136			.00261			
Low Limit			-.00136			-.00261			

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .61121	.00035	.00333	-0.00138	.00707	-0.00159	W -.00579	.00334	-0.00050
Stddev	.00066	.00011	.00016	.00028	.00006	.00216	.00294	.01130	.00056
%RSD	.10763	30.573	4.7993	20.418	.87239	135.92	50.748	338.29	110.86

#1	.61075	.00042	.00344	-0.00118	.00712	-0.00312	-0.00371	.01133	-0.00011
#2	.61168	.00027	.00322	-0.00158	.00703	-0.00006	-0.00787	-.00465	-0.00090

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Warn	Chk Pass	Chk Pass
High Limit	.20152						.00486		
Low Limit	-.20152						-.00486		

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00010	.00191	.00020	-0.00026	F -.03854	-0.00058	-0.00151	.00371
Stddev	.00006	.00033	.00004	.00058	.04355	.00028	.00023	.00072
%RSD	55.337	17.098	17.454	223.31	112.99	47.915	15.443	19.306

#1	.00014	.00214	.00023	-0.00067	-.06933	-0.00078	-0.00168	.00321
#2	.00006	.00168	.00018	.00015	-.00775	-0.00039	-0.00135	.00422

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit					.03542			
Low Limit					-.03542			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6223.2	86804.	5186.4
Stddev	6.4	87.	7.8
%RSD	.10221	.10002	.14995

#1	6218.7	86865.	5191.9
#2	6227.7	86742.	5180.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05093	1.9595	.96227	1.0306	2.1966	.05069	2.0093	50.672	.10538
Stddev	.00034	.0032	.00071	.0003	.0089	.00019	.0028	.164	.00019
%RSD	.66392	.16111	.07384	.03222	.40465	.37153	.13825	.32326	.18196
#1	.05069	1.9617	.96277	1.0304	2.1904	.05056	2.0113	50.556	.10524
#2	.05117	1.9572	.96177	1.0308	2.2029	.05083	2.0074	50.788	.10551

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48550	.19733	.25587	.95666	48.939	1.0534	51.039	.51045	1.0363
Stddev	.00013	.00035	.00014	.00533	.220	.0021	.061	.00073	.0008
%RSD	.02685	.17983	.05626	.55737	.44978	.19804	.11965	.14244	.07747
#1	.48559	.19758	.25577	.95289	48.784	1.0519	51.082	.50994	1.0369
#2	.48541	.19708	.25597	.96043	49.095	1.0548	50.996	.51097	1.0358

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	54.300	.48417	10.060	.50805	2.0225	.50042	1.9716	10.160	1.9783
Stddev	.241	.00091	.002	.00102	.0069	.00159	.0053	.015	.0008
%RSD	.44416	.18736	.02471	.20167	.34133	.31829	.26852	.14566	.03882
#1	54.470	.48481	10.062	.50732	2.0177	.50155	1.9754	10.170	1.9788
#2	54.129	.48352	10.059	.50877	2.0274	.49930	1.9679	10.150	1.9777

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0130	.97392	1.0480	2.0008	2.0231	.50210	.51220	.53205
Stddev	.0043	.00084	.0012	.0053	.0120	.00255	.00050	.00089
%RSD	.42892	.08650	.11398	.26707	.59532	.50696	.09673	.16720
#1	1.0099	.97451	1.0471	2.0046	2.0146	.50390	.51255	.53267
#2	1.0160	.97332	1.0488	1.9971	2.0316	.50030	.51185	.53142

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5950.8	82128.	5149.1
Stddev	3.3	88.	28.5
%RSD	.05570	.10761	.55304
#1	5948.4	82191.	5169.3
#2	5953.1	82066.	5129.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0061	.00321	.01790	.17744	.17230	.00006	-0.00184	47.193	.00016
Stddev	.00038	.00028	.00162	.00047	.00024	.00001	.00260	.083	.00021
%RSD	61.539	8.7371	9.0631	.26313	.14048	19.955	141.22	.17610	128.33

#1	-0.0035	.00301	.01675	.17711	.17247	.00005	-.00367	47.252	.00031
#2	-0.00088	.00341	.01905	.17777	.17213	.00007	-.00000	47.134	.00002

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00039	.00112	.00298	.01470	1.9259	.03321	27.940	.01680	.00281
Stddev	.00002	.00005	.00013	.00473	.0148	.00002	.040	.00002	.00032
%RSD	4.6467	4.8414	4.4835	32.178	.76866	.04701	.14273	.13008	11.254

#1	-0.0038	.00108	.00289	.01135	1.9363	.03322	27.968	.01678	.00259
#2	-0.00041	.00116	.00308	.01804	1.9154	.03320	27.912	.01681	.00304

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.820	.00095	.01381	-0.00108	7.0164	-0.00131	.00311	8.6173	-0.00005
Stddev	.691	.00002	.00086	.00257	.0046	.00159	.00219	.0096	.00053
%RSD	2.5749	2.3134	6.2616	237.17	.06517	120.78	70.482	.11133	1144.1

#1	26.331	.00097	.01320	.00073	7.0132	-.00243	.00156	8.6241	-.00042
#2	27.308	.00094	.01442	-.00290	7.0196	-.00019	.00465	8.6105	.00033

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.20102	-0.00012	.00040	.00052	.00320	.00762	-0.00057	.00126
Stddev	.00054	.00155	.00007	.00040	.02958	.00046	.00021	.00056
%RSD	.26980	1276.5	18.802	77.497	925.75	6.0426	35.800	44.839

#1	.20140	.00098	.00045	.00080	-.01772	.00795	-.00043	.00165
#2	.20063	-.00122	.00034	.00023	.02411	.00730	-.00072	.00086

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6041.6	83793.	5174.4
Stddev	12.1	139.	11.8
%RSD	.20053	.16566	.22828

#1	6050.1	83891.	5182.7
#2	6033.0	83694.	5166.0

Sample Name: 280-70353-G-1-A SD@5 Acquired: 6/15/2015 21:23:53 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 281091 200.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0059	.00017	.00538	.04122	.03367	.00008	.00040	9.4098	.00015
Stddev	.00013	.00007	.00097	.00022	.00006	.00007	.00280	.0350	.00028
%RSD	22.805	44.747	18.039	.52252	.17617	87.618	693.09	.37185	192.31

#1	-0.00049	.00011	.00607	.04107	.03372	.00003	.00238	9.3850	.00035
#2	-0.00068	.00022	.00470	.04138	.03363	.00013	-.00157	9.4345	-.00005

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0030	.00016	.00090	.00050	.30182	.00944	5.6447	.00350	.00061
Stddev	.00014	.00011	.00036	.00050	.04459	.00137	.0019	.00006	.00059
%RSD	45.645	70.656	40.148	100.31	14.774	14.506	.03416	1.6800	96.986

#1	-0.00039	.00024	.00115	.00086	.33334	.00847	5.6433	.00354	.00019
#2	-0.00020	.00008	.00064	.00015	.27029	.01041	5.6461	.00346	.00103

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.4524	.00028	.00366	-0.0056	1.3589	-0.00124	-0.00481	1.6912	-0.0049
Stddev	.0018	.00016	.00246	.00072	.0120	.00008	.00090	.0313	.00043
%RSD	.03284	54.847	67.264	128.22	.88047	6.4257	18.785	1.8502	86.967

#1	5.4511	.00017	.00539	-.00107	1.3505	-.00129	-.00545	1.6690	-.00080
#2	5.4536	.00039	.00192	-.00005	1.3674	-.00118	-.00417	1.7133	-.00019

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04033	-0.0018	.00002	.00072	.02679	.00133	-0.00266	.00226
Stddev	.00035	.00323	.00036	.00084	.06590	.00007	.00000	.00035
%RSD	.85759	1789.2	1842.2	117.14	245.94	5.3051	.05429	15.499

#1	.04009	.00210	-.00023	.00132	-.01980	.00128	-.00266	.00201
#2	.04058	-.00246	.00027	.00012	.07339	.00138	-.00266	.00251

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6104.1	84472.	5119.9
Stddev	.5	9.	29.5
%RSD	.00763	.01090	.57570

#1	6104.4	84479.	5140.7
#2	6103.7	84466.	5099.1

Sample Name: 280-70353-G-1-B MS Acquired: 6/15/2015 21:26:31 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 281091 200.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05183	1.9677	.99728	1.2131	2.3886	.05186	2.0142	98.631	.10669
Stddev	.00006	.0026	.00001	.0014	.0004	.00017	.0031	.104	.00024
%RSD	.11073	.13067	.00089	.11648	.01856	.32067	.15541	.10525	.22513

#1	.05187	1.9659	.99729	1.2121	2.3889	.05198	2.0164	98.705	.10652
#2	.05179	1.9695	.99728	1.2141	2.3882	.05174	2.0120	98.558	.10686

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48740	.19971	.26016	.97792	51.948	1.0943	80.038	.53288	1.0502
Stddev	.00028	.00017	.00045	.01249	.058	.0009	.009	.00064	.0013
%RSD	.05811	.08663	.17393	1.2771	.11074	.08623	.01179	.12021	.12583

#1	.48760	.19959	.26048	.96909	51.988	1.0937	80.031	.53333	1.0511
#2	.48720	.19983	.25984	.98675	51.907	1.0950	80.045	.53243	1.0492

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	80.388	.48697	10.304	.50708	9.2712	.50866	1.9982	19.043	2.0018
Stddev	.550	.00027	.007	.00260	.0149	.00243	.0024	.010	.0024
%RSD	.68421	.05483	.06614	.51198	.16012	.47795	.12102	.05437	.11794

#1	79.999	.48678	10.308	.50891	9.2816	.51038	1.9965	19.035	2.0035
#2	80.777	.48716	10.299	.50524	9.2607	.50694	1.9999	19.050	2.0001

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.2241	.99501	1.0657	1.9502	1.9969	.52150	.51935	.54112
Stddev	.0003	.00019	.0013	.0006	.0037	.00116	.00030	.00521
%RSD	.02776	.01940	.11843	.03105	.18577	.22283	.05732	.96282

#1	1.2238	.99515	1.0666	1.9498	1.9943	.52068	.51956	.53743
#2	1.2243	.99487	1.0648	1.9507	1.9995	.52232	.51914	.54480

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5848.9	80362.	5101.1
Stddev	9.8	33.	1.0
%RSD	.16678	.04116	.01920

#1	5855.8	80385.	5101.8
#2	5842.0	80339.	5100.4

Sample Name: 280-70353-G-1-C MSD Acquired: 6/15/2015 21:28:55 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281091 200.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05112	1.9397	.98494	1.1985	2.3577	.05127	1.9805	98.122	.10542
Stddev	.00065	.0051	.00270	.0000	.0041	.00003	.0043	.189	.00016
%RSD	1.2648	.26125	.27447	.00108	.17428	.06262	.21480	.19283	.15430

#1	.05066	1.9432	.98685	1.1985	2.3606	.05124	1.9835	98.255	.10554
#2	.05158	1.9361	.98303	1.1985	2.3548	.05129	1.9775	97.988	.10531

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47958	.19697	.25531	.96162	51.205	1.0801	79.256	.52471	1.0363
Stddev	.00047	.00026	.00031	.00109	.085	.0038	.046	.00018	.0011
%RSD	.09870	.13094	.12115	.11291	.16620	.35363	.05856	.03490	.10448

#1	.47991	.19715	.25552	.96085	51.266	1.0828	79.289	.52458	1.0370
#2	.47924	.19679	.25509	.96239	51.145	1.0774	79.224	.52484	1.0355

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	80.094	.47896	10.130	.50003	9.2381	.50262	1.9652	18.975	1.9680
Stddev	.809	.00045	.020	.00085	.0114	.00165	.0050	.014	.0034
%RSD	1.0106	.09298	.19921	.17001	.12292	.32867	.25721	.07125	.17294

#1	80.666	.47927	10.144	.49943	9.2462	.50379	1.9688	18.966	1.9704
#2	79.522	.47864	10.116	.50063	9.2301	.50145	1.9616	18.985	1.9656

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.2091	.97879	1.0500	1.9256	2.0110	.51426	.51319	.53088
Stddev	.0026	.00011	.0002	.0019	.0135	.00148	.00168	.00310
%RSD	.21392	.01098	.02071	.10135	.66993	.28710	.32782	.58437

#1	1.2109	.97871	1.0498	1.9242	2.0206	.51531	.51200	.53307
#2	1.2073	.97887	1.0501	1.9270	2.0015	.51322	.51438	.52868

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5850.9	80539.	5114.4
Stddev	3.9	175.	9.3
%RSD	.06633	.21697	.18191

#1	5853.6	80663.	5107.8
#2	5848.1	80416.	5120.9

Sample Name: 280-70353-G-2-A Acquired: 6/15/2015 21:31:18 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 281091 200.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0097	.00163	.01848	.17681	.17208	.00004	-0.0049	47.068	.00022
Stddev	.00057	.00123	.00053	.00064	.00063	.00011	.00059	.126	.00010
%RSD	58.856	75.176	2.8925	.36379	.36852	326.45	121.77	.26834	45.163

#1	-0.0137	.00077	.01810	.17727	.17252	-0.00005	-0.00007	47.158	.00029
#2	-0.00056	.00250	.01885	.17636	.17163	.00012	-0.00091	46.979	.00015

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00033	.00075	.00279	.00186	1.8643	.03201	27.988	.01576	.00288
Stddev	.00006	.00007	.00010	.00160	.0551	.00173	.000	.00001	.00046
%RSD	16.913	9.3539	3.5989	86.165	2.9554	5.4189	.00172	.06956	15.945

#1	-0.00037	.00080	.00272	.00300	1.9032	.03324	27.988	.01575	.00255
#2	-0.00029	.00070	.00287	.00073	1.8253	.03078	27.989	.01577	.00320

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.972	.00060	.01309	-0.00174	6.9820	-0.00221	.00204	8.6727	-0.0061
Stddev	.294	.00005	.00073	.00120	.0104	.00062	.00138	.0340	.00014
%RSD	1.0884	8.1075	5.5452	68.686	.14955	28.221	67.518	.39265	23.260

#1	26.764	.00063	.01360	-0.00090	6.9746	-0.00177	.00301	8.6967	-0.00051
#2	27.179	.00056	.01258	-0.00259	6.9894	-0.00266	.00106	8.6486	-0.00071

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.19958	.00104	.00054	.00156	-0.02743	.00742	-0.00046	-0.00100
Stddev	.00061	.00031	.00059	.00045	.00793	.00050	.00008	.00049
%RSD	.30491	29.572	110.01	29.110	28.901	6.6945	17.829	48.975

#1	.20001	.00083	.00096	.00124	-.03303	.00777	-0.00040	-0.00065
#2	.19915	.00126	.00012	.00188	-.02182	.00707	-0.00051	-0.00135

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6015.6	83084.	5148.5
Stddev	5.8	115.	.1
%RSD	.09586	.13880	.00173

#1	6019.7	83165.	5148.4
#2	6011.5	83002.	5148.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0110	.01209	.01992	.15949	.28088	.00007	.00078	48.716	.00044
Stddev	.00042	.00012	.00100	.00047	.00132	.00000	.00439	.119	.00003
%RSD	38.612	.99175	5.0103	.29358	.47101	5.4764	563.49	.24362	5.7858

#1	-0.00080	.01217	.02062	.15916	.28182	.00007	-.00232	48.800	.00046
#2	-0.00140	.01200	.01921	.15982	.27995	.00007	.00388	48.633	.00042

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00004	.00065	.00179	.01590	1.9584	.04033	22.532	.01455	.00113
Stddev	.00006	.00010	.00025	.00302	.0028	.00019	.012	.00009	.00011
%RSD	168.16	15.337	13.706	18.967	.14403	.48275	.05311	.60114	9.8429

#1	.00008	.00072	.00162	.01377	1.9604	.04047	22.541	.01449	.00105
#2	-.00001	.00058	.00197	.01803	1.9564	.04020	22.524	.01461	.00120

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.365	.00092	.01192	-.00103	1.0639	-.00174	.00109	9.6927	-.00147
Stddev	.155	.00007	.00236	.00031	.0002	.00046	.00170	.0502	.00051
%RSD	.89430	7.9517	19.789	29.939	.01749	26.356	155.39	.51778	34.508

#1	17.475	.00097	.01025	-.00081	1.0638	-.00206	.00229	9.7282	-.00111
#2	17.256	.00087	.01359	-.00125	1.0640	-.00141	-.00011	9.6572	-.00183

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.19448	.00061	.00009	.00129	.00104	.00594	.00121	-.00106
Stddev	.00063	.00110	.00012	.00202	.04399	.00018	.00006	.00219
%RSD	.32632	180.21	130.90	156.85	4239.1	3.0690	5.2016	207.30

#1	.19493	.00139	.00001	-.00014	-.03007	.00581	.00125	-.00260
#2	.19403	-.00017	.00018	.00272	.03215	.00607	.00116	.00049

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6064.8	83634.	5141.1
Stddev	7.8	232.	10.8
%RSD	.12887	.27755	.21036

#1	6059.2	83469.	5148.7
#2	6070.3	83798.	5133.4

Sample Name: 280-70353-G-4-A Acquired: 6/15/2015 21:36:30 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281091 200.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0064	.00163	.02766	.30482	.22661	.00004	-0.00164	48.352	.00030
Stddev	.00048	.00082	.00061	.00031	.00058	.00002	.00024	.015	.00006
%RSD	75.210	50.456	2.1965	.10038	.25461	51.374	14.601	.03094	19.805

#1	-0.00098	.00221	.02809	.30503	.22620	.00006	-.00181	48.341	.00026
#2	-0.00030	.00105	.02723	.30460	.22701	.00003	-.00147	48.362	.00034

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0029	.00029	.00160	.00579	2.8012	.07294	29.328	.02216	.00124
Stddev	.00017	.00018	.00002	.00019	.0389	.0191	.063	.00006	.00006
%RSD	56.988	63.168	1.5143	3.2503	1.3868	2.6178	.21503	.28224	4.7101

#1	-0.0017	.00042	.00162	.00592	2.7737	.07159	29.283	.02212	.00120
#2	-0.0041	.00016	.00159	.00566	2.8286	.07429	29.372	.02221	.00128

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	28.326	.00136	.00562	-0.00203	1.4591	-0.00176	-0.00200	9.9550	-0.00095
Stddev	.045	.00012	.00007	.00164	.0039	.00022	.00170	.0249	.00033
%RSD	.15808	9.0217	1.1819	80.676	.26936	12.542	85.134	.24992	35.035

#1	28.295	.00144	.00566	-0.00087	1.4619	-0.00160	-0.00080	9.9375	-0.00118
#2	28.358	.00127	.00557	-0.00319	1.4563	-0.00191	-0.00321	9.9726	-0.00071

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.24898	-0.00003	.00039	-0.00000	-0.01523	.00628	-0.00092	.00338
Stddev	.00020	.00035	.00027	.00125	.01143	.00049	.00047	.00059
%RSD	.08106	1203.7	70.654	26264.	75.075	7.7286	51.350	17.287

#1	.24912	-0.00027	.00058	-0.00089	-.00714	.00594	-0.00059	.00380
#2	.24884	.00022	.00019	.00088	-.02331	.00662	-0.00126	.00297

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6025.9	82981.	5109.1
Stddev	5.9	17.	7.3
%RSD	.09716	.01993	.14370

#1	6021.8	82993.	5114.3
#2	6030.1	82970.	5103.9

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00089	49.621	-.00394	.00911	-.00013	.00014	.98176	.00751	-.00135	.00103	.00043	.01889	49.403
Stddev	.00040	.197	.00161	.00027	.00018	.00002	.00460	.00361	.00013	.00021	.00029	.00003	.071
%RSD	44.340	.39687	40.907	3.0159	132.25	13.675	.46834	48.006	9.4261	19.919	67.932	.13777	.14354

#1	.00117	49.760	-.00280	.00891	-.00026	.00015	.97851	.01006	-.00126	.00089	.00022	.01887	49.453
#2	.00061	49.481	-.00509	.00930	-.00001	.00013	.98501	.00496	-.00144	.00118	.00063	.01891	49.353

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.06738	.00320	-.00053	.00155	-.00149	258.62	.00205	.00760	-.00108	4.9364	.01297	-.00454	.00183
Stddev	.05920	.00054	.00507	.00002	.00012	.96	.00008	.00267	.00065	.0067	.00192	.00337	.02749
%RSD	87.856	16.931	960.85	1.1140	8.1460	.37290	3.9838	35.175	59.845	.13610	14.838	74.205	1501.1

#1	-.10924	.00359	.00306	.00156	-.00157	259.30	.00211	.00571	-.00063	4.9411	.01433	-.00692	-.01761
#2	-.02552	.00282	-.00411	.00154	-.00140	257.94	.00199	.00949	-.00154	4.9316	.01161	-.00216	.02127

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00011	.00051	4.7933	-.00002	-.00002	9.6917	.00225	-.00123	.21054
Stddev	.00034	.00013	.0017	.00018	.00014	.0001	.00003	.00002	.00276
%RSD	310.47	25.331	.03486	821.91	779.84	.00098	1.4208	1.3329	1.3086

#1	.00035	.00042	4.7921	-.00015	.00008	9.6918	.00222	-.00122	.21249
#2	-.00013	.00061	4.7945	.00011	-.00012	9.6916	.00227	-.00124	.20860

Check ?	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5931.5	80761.	5055.3
Stddev	8.4	277.	35.0
%RSD	.14108	.34271	.69217

#1	5925.5	80566.	5030.6
#2	5937.4	80957.	5080.1

Sample Name: ccv-3330457 Acquired: 6/15/2015 21:41:40 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49701	.49823	.92023	.48781	.52887	.48973	-.05659	4.9263	.50699	.47770	.47604	.48504	2.3176
Stddev	.00114	.00178	.00224	.00088	.00050	.00067	.00213	.0040	.00092	.00139	.00009	.00087	.0070
%RSD	.22979	.35791	.24386	.18021	.09497	.13650	3.7554	.08138	.18215	.29110	.01798	.17886	.30156

#1	.49620	.49949	.92181	.48843	.52923	.49020	-.05809	4.9292	.50765	.47869	.47610	.48443	2.3127
#2	.49782	.49697	.91864	.48719	.52852	.48926	-.05508	4.9235	.50634	.47672	.47598	.48566	2.3226

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	46.818	1.0122	20.019	.49560	.47774	5.3527	.47910	.93414	1.0031	-.00082	.96590	.92674	4.8859
Stddev	.048	.0029	.016	.00039	.00041	.0089	.00108	.00089	.0001	.00004	.00242	.00742	.0032
%RSD	.10350	.28149	.07842	.07822	.08582	.16546	.22464	.09539	.00985	5.2764	.25074	.80115	.06636

#1	46.783	1.0142	20.008	.49588	.47803	5.3590	.47986	.93351	1.0031	-.00085	.96762	.93199	4.8882
#2	46.852	1.0102	20.030	.49533	.47745	5.3465	.47834	.93477	1.0030	-.00079	.96419	.92149	4.8836

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass								
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.95521	.48719	.01594	.50434	.99783	.03343	.48136	.49930	.47144
Stddev	.00036	.00018	.00012	.00065	.00008	.03165	.00024	.00098	.00062
%RSD	.03753	.03754	.76977	.12965	.00768	94.672	.05082	.19709	.13238

#1	.95547	.48732	.01585	.50480	.99788	.01105	.48154	.49860	.47100
#2	.95496	.48706	.01603	.50388	.99778	.05581	.48119	.50000	.47188

Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6082.2	83410.	5113.4
Stddev	4.0	186.	3.4
%RSD	.06545	.22278	.06597

#1	6079.3	83278.	5111.0
#2	6085.0	83541.	5115.8

Sample Name: CCB Acquired: 6/15/2015 21:44:07 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W -0.00128	-0.00020	.00154	F .00591	W -0.00066	-0.00004	.00131	.00561	.00017	-0.00031	-0.00004
Stddev	.00013	.00062	.00280	.00032	.00008	.00003	.00155	.00496	.00019	.00036	.00011
%RSD	10.328	304.09	181.43	5.4066	12.634	75.510	118.08	88.395	115.11	114.11	286.63

#1	-0.00137	.00024	.00352	.00614	-0.00072	-0.00007	.00022	.00911	.00030	-0.00006	.00004
#2	-0.00119	-0.00064	-0.00044	.00569	-0.00060	-0.00002	.00241	.00210	.00003	-0.00057	-0.00012

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Fail	Chk Warn	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.00093			.00312	.00058						
Low Limit	-0.00093			-0.00312	-0.00058						

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00062	-0.00120	-1.2087	W .00336	-0.00084	-0.00005	.00116	F .20463	.00019	.00404	-0.00089
Stddev	.00043	.00161	.04651	.00058	.00055	.00003	.00009	.00063	.00011	.00142	.00155
%RSD	68.536	134.71	38.480	17.374	65.086	60.354	7.5899	.30681	56.686	35.063	173.98

#1	.00092	-0.00006	-0.08799	.00295	-0.00123	-0.00003	.00110	.20419	.00027	.00304	.00020
#2	.00032	-0.00233	-1.5376	.00378	-0.00046	-0.00008	.00122	.20508	.00012	.00504	-0.00198

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				.00261				.20152			
Low Limit				-0.00261				-0.20152			

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00047	-0.00133	.00130	.01239	-0.00025	.00001	.00137	.00029	-0.00041	.00450	-0.00055
Stddev	.00277	.00030	.00264	.02448	.00066	.00004	.00108	.00014	.00018	.01457	.00012
%RSD	593.28	22.379	203.63	197.65	262.50	358.94	79.280	48.118	43.620	324.09	21.979

#1	.00243	-0.00112	.00317	.02970	.00021	-0.00002	.00060	.00038	-0.00053	.01480	-0.00063
#2	-0.00149	-0.00154	-0.00057	-0.00493	-0.00071	.00004	.00213	.00019	-0.00028	-0.00581	-0.00046

Check ?	None	Chk Pass									
High Limit											
Low Limit											

Elem	Zn2062	Zr3391
Units	ppm	ppm
Avg	-0.00313	W .00318
Stddev	.00023	.00080
%RSD	7.4777	24.994

#1	-0.00329	.00262
#2	-0.00296	.00374

Check ?	Chk Pass	Chk Warn
High Limit		.00238
Low Limit		-0.00238

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6195.8	86101.	5156.9
Stddev	3.4	86.	13.4
%RSD	.05493	.10008	.25997

#1	6198.2	86040.	5147.4
#2	6193.4	86162.	5166.4

Sample Name: CCVL3330451 Acquired: 6/15/2015 21:46:47 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00959	.11190	.01511	.10482	.01041	.00108	.11816	.21977	.00559	.00999	.01008	.01697
Stddev	.00058	.00035	.00164	.00063	.00014	.00007	.00296	.00007	.00001	.00002	.00005	.00006
%RSD	6.0681	.31297	10.825	.59914	1.3695	6.6239	2.5040	.03117	.14243	.21829	.46857	.36447

#1	.01001	.11214	.01627	.10526	.01051	.00103	.12025	.21982	.00558	.00997	.01004	.01701
#2	.00918	.11165	.01395	.10437	.01031	.00114	.11607	.21972	.00559	.01000	.01011	.01692

Check ?	Chk Pass											
Value Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09311	2.8428	.01084	.22031	.01055	.01976	W 1.2780	.04139	2.8119	.00958	.00024	.00945
Stddev	.00092	.0317	.00015	.00108	.00006	.00008	.0079	.00001	.0020	.00124	.00058	.00017
%RSD	.99209	1.1164	1.3802	.49146	.53345	.38247	.61978	.02320	.07119	12.968	246.46	1.8466

#1	.09246	2.8652	.01095	.21955	.01059	.01982	1.2724	.04140	2.8105	.01046	.00065	.00932
#2	.09377	2.8203	.01074	.22108	.01051	.01971	1.2836	.04139	2.8133	.00871	-.00018	.00957

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass					
Value Range							1.0000 20.000%					

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .01083	.51014	.10026	.01016	.01388	.01053	.01488	F .09866	.00921	.02054	.01583
Stddev	.00165	.00109	.00005	.00009	.00050	.00008	.00059	.00747	.00008	.00015	.00322
%RSD	15.265	.21362	.05417	.92188	3.5873	.74196	3.9574	7.5726	.84493	.74883	20.345

#1	.00966	.50937	.10022	.01009	.01423	.01047	.01529	.10394	.00916	.02043	.01810
#2	.01199	.51091	.10030	.01022	.01353	.01058	.01446	.09338	.00927	.02065	.01355

Check ?	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass					
Value Range	.01500 -20.000%							.06000 30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6225.5	86110.	5183.6
Stddev	1.1	148.	1.3
%RSD	.01813	.17140	.02456

#1	6224.7	86215.	5184.5
#2	6226.3	86006.	5182.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0087	.00026	.00115	F .00483	-0.00046	-0.00001	.00184	.01322	.00010
Stddev	.00046	.00114	.00483	.00000	.00028	.00017	.00187	.00585	.00008
%RSD	53.160	442.19	419.31	.10005	61.184	1331.3	101.54	44.286	83.263

#1	-0.0120	-0.0055	-0.0226	.00482	-0.00026	-0.00013	.00316	.00908	.00016
#2	-0.0054	.00106	.00457	.00483	-0.00066	.00011	.00052	.01736	.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass				
High Limit				.00343					
Low Limit				-.00343					

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0025	.00029	.00103	-0.00245	-0.09689	.00168	.00185	.00006	.00028
Stddev	.00017	.00009	.00024	.00107	.13167	.00061	.00295	.00001	.00022
%RSD	68.655	29.425	23.707	43.733	135.90	36.270	159.18	23.830	77.046

#1	-0.0037	.00023	.00120	-0.00321	-0.00378	.00211	.00394	.00007	.00013
#2	-0.0013	.00035	.00085	-0.00169	-.19000	.00125	-.00023	.00005	.00043

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .18952	-0.0014	.00200	-0.00057	.00269	-0.00263	-0.00056	.01917	-0.00049
Stddev	.00964	.00006	.00056	.00071	.00430	.00169	.00361	.01948	.00021
%RSD	5.0866	42.179	27.955	125.50	159.49	64.273	639.43	101.65	41.914

#1	.18270	-0.0010	.00160	-0.00107	-0.00034	-0.00144	-0.00312	.00539	-0.00064
#2	.19633	-0.0019	.00239	-0.00006	.00573	-0.00383	.00199	.03294	-0.00034

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.09160								
Low Limit	-.09160								

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00003	.00047	.00025	-0.00088	-0.00709	-0.00033	-0.00263	.00072
Stddev	.00001	.00029	.00015	.00013	.00287	.00001	.00047	.00139
%RSD	25.392	63.024	59.965	15.080	40.526	1.9724	17.777	191.67

#1	.00003	.00067	.00014	-0.00097	-0.00506	-0.00033	-0.00230	.00170
#2	.00004	.00026	.00035	-0.00078	-0.00912	-0.00032	-0.00296	-0.00026

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6276.0	87157.	5236.3
Stddev	5.0	137.	2.9
%RSD	.08003	.15702	.05579

#1	6279.5	87253.	5238.4
#2	6272.4	87060.	5234.3

Sample Name: LCS 280-281210/2-A Acquired: 6/15/2015 21:52:03 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281210 200.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05063	1.9370	.94574	1.0184	2.1830	.05046	1.9875	50.225	.10503
Stddev	.00041	.0003	.00156	.0007	.0022	.00004	.0006	.009	.00008
%RSD	.81963	.01653	.16509	.06613	.09880	.07783	.03213	.01848	.07941

#1	.05034	1.9367	.94684	1.0188	2.1845	.05049	1.9870	50.232	.10497
#2	.05092	1.9372	.94463	1.0179	2.1815	.05043	1.9879	50.219	.10508

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47924	.19436	.25317	.95184	48.131	1.0347	51.130	.50768	1.0221
Stddev	.00035	.00025	.00090	.00364	.099	.0016	.085	.00057	.0018
%RSD	.07207	.12944	.35724	.38223	.20582	.15513	.16604	.11172	.18008

#1	.47948	.19418	.25253	.95441	48.201	1.0358	51.070	.50728	1.0208
#2	.47900	.19454	.25381	.94926	48.061	1.0336	51.190	.50808	1.0234

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	53.872	.47729	9.9166	.50463	1.9978	.49660	1.9419	10.062	1.9569
Stddev	.337	.00049	.0079	.00151	.0048	.00421	.0031	.003	.0001
%RSD	.62522	.10246	.07965	.30018	.24089	.84683	.15930	.03092	.00489

#1	54.110	.47763	9.9110	.50571	2.0012	.49363	1.9397	10.060	1.9570
#2	53.634	.47694	9.9222	.50356	1.9944	.49957	1.9441	10.064	1.9569

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.99649	.96449	1.0413	1.9850	2.0043	.49894	.51044	.52417
Stddev	.00172	.00558	.0018	.0023	.0523	.00195	.00051	.00028
%RSD	.17282	.57805	.17252	.11487	2.6085	.39163	.10007	.05357

#1	.99771	.96055	1.0400	1.9866	2.0413	.49756	.51080	.52437
#2	.99527	.96844	1.0426	1.9834	1.9673	.50032	.51008	.52397

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5984.0	82049.	5167.3
Stddev	7.1	88.	34.1
%RSD	.11919	.10721	.65975

#1	5989.1	81987.	5143.2
#2	5979.0	82111.	5191.4

Sample Name: 280-70302-F-1-B Acquired: 6/15/2015 21:54:27 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281210 200.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0072	.10724	.00346	.01478	.00904	.00011	-0.00008	7.3816	-0.00002
Stddev	.00003	.00084	.00243	.00052	.00021	.00004	.00023	.0075	.00013
%RSD	3.9261	.78532	70.096	3.5010	2.3051	38.056	266.37	.10133	532.01
#1	-0.0074	.10665	.00518	.01514	.00889	.00014	-0.00024	7.3869	.00007
#2	-0.0070	.10784	.00175	.01441	.00918	.00008	.00007	7.3763	-0.0011

Check ? Chk Pass
High Limit
Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00021	.00018	.00378	.43112	.42806	.00172	1.6358	.05380	.00206
Stddev	.00018	.00003	.00004	.00222	.04632	.00117	.0074	.00004	.00038
%RSD	82.626	14.886	1.1493	.51518	10.820	67.692	.45354	.06953	18.255
#1	.00034	.00020	.00381	.42954	.39531	.00090	1.6410	.05378	.00180
#2	.00009	.00016	.00374	.43269	.46081	.00255	1.6305	.05383	.00233

Check ? Chk Pass
High Limit
Low Limit

Elem	Na5895	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	589.592 { 57}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 9.8887	10.804	.00058	.01143	-0.00169	1.0071	-0.00056	.00469	4.4232
Stddev	.0017	.025	.00013	.00600	.00094	.0040	.00057	.00119	.0165
%RSD	.01678	.23497	22.035	52.531	55.442	.39497	102.84	25.404	.37225
#1	9.8875	10.822	.00049	.00718	-.00103	1.0043	-0.00015	.00384	4.4349
#2	9.8898	10.786	.00068	.01568	-.00235	1.0099	-0.00097	.00553	4.4116

Check ? Chk Warn Chk Pass
High Limit 9.0000
Low Limit -50000

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00032	.05988	.00151	.00380	.00030	-0.01749	-0.00029	-0.00100	-0.00087
Stddev	.00030	.00003	.00081	.00031	.00046	.00614	.00033	.00009	.00123
%RSD	93.980	.05757	53.668	8.0753	151.59	35.088	113.68	9.0503	142.31
#1	-0.00053	.05991	.00093	.00401	.00063	-.01315	-0.00006	-.00107	.00001
#2	-0.0011	.05986	.00208	.00358	-.00002	-.02183	-0.00052	-.00094	-.00174

Check ? Chk Pass
High Limit
Low Limit

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6236.2	85821.	5244.3
Stddev	9.2	70.	1.5
%RSD	.14723	.08117	.02876
#1	6229.7	85870.	5243.2
#2	6242.7	85772.	5245.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0106	.45645	.00301	.27150	.06683	.00013	-.00226	71.005	.00029
Stddev	.00015	.00018	.00210	.00086	.00010	.00006	.00035	.109	.00042
%RSD	14.453	.03850	69.737	.31581	.14538	46.046	15.601	.15298	144.07

#1	-0.0117	.45632	.00153	.27090	.06690	.00009	-.00250	71.082	.00058
#2	-0.0095	.45657	.00450	.27211	.06676	.00017	-.00201	70.928	-.00001

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00033	.00189	.00683	.57503	15.004	.02915	15.288	.39647	.01390
Stddev	.00013	.00024	.00003	.00152	.077	.00126	.001	.00013	.00014
%RSD	40.422	12.892	.48691	.26390	.51393	4.3163	.00819	.03196	1.0027

#1	.00043	.00206	.00686	.57396	14.950	.02826	15.289	.39656	.01380
#2	.00024	.00171	.00681	.57611	15.059	.03003	15.287	.39638	.01400

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	123.89	.00284	.06628	-0.0070	52.857	-0.0100	-0.00324	7.8928	-0.0008
Stddev	.07	.00029	.00128	.00022	.042	.00039	.00142	.0018	.00022
%RSD	.05257	10.323	1.9297	31.297	.07949	38.790	43.887	.02290	287.88

#1	123.94	.00263	.06538	-0.0055	52.887	-0.0127	-.00425	7.8915	-0.0023
#2	123.85	.00305	.06719	-0.0086	52.828	-0.0072	-.00224	7.8940	.00008

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.63959	-.00075	.01064	-0.0033	.01677	.00443	.00256	.00056
Stddev	.00087	.00241	.00027	.00005	.00305	.00016	.00056	.00214
%RSD	.13528	321.86	2.5740	14.092	18.178	3.5837	21.766	382.00

#1	.64021	.00096	.01045	-0.0036	.01461	.00454	.00295	.00208
#2	.63898	-.00245	.01083	-0.0029	.01893	.00432	.00217	-.00095

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6014.0	82470.	5199.5
Stddev	6.6	416.	19.5
%RSD	.10900	.50438	.37500

#1	6009.4	82176.	5185.8
#2	6018.6	82764.	5213.3

Sample Name: 280-70440-B-1-B Acquired: 6/15/2015 21:59:41 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 281210 200.7

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0140	W 2.7002	F 2.9462	.00043	.02503	.08513	.00020	W -.01688	29.970
Stddev	.00018	.0007	.0121	.00108	.00043	.00036	.00001	.00182	.020
%RSD	12.802	.02562	.41020	252.86	1.7024	.42803	6.6175	10.761	.06610

#1	-0.0128	2.6998	2.9548	-0.0034	.02533	.08487	.00021	-0.01817	29.956
#2	-0.0153	2.7007	2.9377	.00119	.02473	.08539	.00020	-0.01560	29.984

Check ?	Chk Pass	Chk Warn	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit		2.7000	1000.0					3.0000	
Low Limit		-.05000	3.0000					-.01000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00047	.00112	.00452	.00841	2.3815	3.2889	.00471	1.0711	.08493
Stddev	.00016	.00004	.00001	.00002	.0021	.0298	.00248	.0002	.00031
%RSD	34.239	3.9712	.32271	.25106	.08633	.90551	52.685	.02057	.36487

#1	.00035	.00109	.00453	.00842	2.3830	3.3099	.00646	1.0709	.08471
#2	.00058	.00116	.00451	.00839	2.3801	3.2678	.00296	1.0712	.08515

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00131	3.8425	.00446	.18716	.00088	1.0662	.00053	-.00383	8.7842
Stddev	.00004	.0071	.00043	.00053	.00087	.0047	.00110	.00094	.0068
%RSD	3.1822	.18545	9.7363	.28431	99.485	.43748	206.71	24.461	.07725

#1	.00134	3.8374	.00415	.18678	.00026	1.0629	-.00025	-.00317	8.7794
#2	.00128	3.8475	.00476	.18754	.00149	1.0695	.00131	-.00450	8.7890

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00037	.13995	-.00018	.12950	.00019	.02397	.02532	.03198	.00653
Stddev	.00044	.00016	.00234	.00041	.00068	.01575	.00008	.00024	.00225
%RSD	117.19	.11469	1306.4	.31873	365.26	65.703	.33020	.74229	34.443

#1	.00006	.13984	-.00183	.12921	.00067	.03510	.02526	.03181	.00812
#2	.00068	.14006	.00147	.12979	-.00030	.01283	.02538	.03214	.00494

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6226.7	85671.	5277.7
Stddev	5.3	190.	11.2
%RSD	.08463	.22187	.21285

#1	6230.5	85806.	5269.7
#2	6223.0	85537.	5285.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00129	.00085	.00064	.04941	-.00036	.00011	.00294	.01768	.00014
Stddev	.00033	.00071	.00277	.00068	.00005	.00008	.00075	.00159	.00027
%RSD	25.773	83.393	432.15	1.3799	13.953	74.342	25.370	8.9714	199.54

#1	-.00152	.00136	-.00132	.04892	-.00033	.00005	.00347	.01655	.00033
#2	-.00105	.00035	.00260	.04989	-.00040	.00016	.00241	.01880	-.00006

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00028	.00007	.00142	-.00140	-.07143	.00055	.00075	.00012	.00015
Stddev	.00006	.00008	.00011	.00295	.06761	.00233	.00029	.00000	.00003
%RSD	22.458	128.99	7.6652	209.97	94.651	420.99	38.747	.75594	21.084

#1	-.00032	.00001	.00150	-.00349	-.02362	.00220	.00096	.00012	.00013
#2	-.00023	.00013	.00135	.00068	-.11924	-.00109	.00055	.00012	.00017

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.17858	.00010	.00387	-.00194	.00755	-.00277	-.00131	.01874	.00026
Stddev	.00800	.00006	.00223	.00004	.00073	.00001	.00058	.00082	.00057
%RSD	4.4801	59.416	57.730	1.8937	9.6825	.30682	44.159	4.3733	218.74

#1	.18424	.00006	.00544	-.00192	.00807	-.00277	-.00172	.01932	-.00014
#2	.17293	.00015	.00229	-.00197	.00703	-.00276	-.00090	.01816	.00067

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00002	.00077	-.00026	-.00063	-.04650	-.00094	-.00273	.00346
Stddev	.00000	.00160	.00003	.00081	.03808	.00007	.00015	.00094
%RSD	4.2247	206.93	11.458	127.22	81.896	7.9811	5.6381	27.063

#1	.00002	.00191	-.00028	-.00006	-.07342	-.00089	-.00262	.00279
#2	.00002	-.00036	-.00024	-.00120	-.01957	-.00099	-.00284	.00412

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6257.3	87096.	5218.1
Stddev	9.4	124.	14.5
%RSD	.15038	.14235	.27781

#1	6264.0	87009.	5228.4
#2	6250.7	87184.	5207.9

Sample Name: 280-70428-A-1-E SD@5 Acquired: 6/15/2015 22:04:58 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 281210 200.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0096	.00074	-0.0118	.01203	-0.00077	-0.00003	.00186	.01922	.00005
Stddev	.00012	.00081	.00102	.00017	.00062	.00004	.00314	.00151	.00013
%RSD	12.790	108.96	86.187	1.3891	80.398	120.12	168.83	7.8521	256.20
#1	-0.0104	.00131	-0.0046	.01215	-0.00121	-0.00006	.00408	.01815	-0.00004
#2	-0.00087	.00017	-0.00190	.01192	-0.00033	-0.00000	-0.00036	.02029	.00014

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0029	-0.00003	.00028	.00080	-1.2067	.00221	.00239	.00002	.00028
Stddev	.00029	.00021	.00011	.00265	.02320	.00257	.00053	.00006	.00003
%RSD	100.62	651.97	39.672	333.05	19.229	116.41	22.202	419.30	12.182
#1	-0.00008	-0.00018	.00020	-0.00108	-1.0426	.00403	.00202	.00006	.00025
#2	-0.00050	.00012	.00036	.00267	-1.3707	.00039	.00277	-0.00003	.00030

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.16854	.00006	.00268	-0.00059	.00834	-0.0102	W -0.00544	.02086	-0.00085
Stddev	.01009	.00016	.00028	.00047	.00047	.00111	.00096	.01842	.00043
%RSD	5.9857	250.98	10.353	78.823	5.6616	108.75	17.736	88.300	50.238
#1	.17567	.00017	.00288	-0.00026	.00801	-0.00024	-0.00475	.03389	-0.00115
#2	.16141	-0.00005	.00249	-0.00092	.00868	-0.00181	-0.00612	.00784	-0.00055

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Warn Chk Pass Chk Pass
 High Limit
 Low Limit 5.0000
 -0.00500

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00004	.00036	.00034	-0.00090	.01822	-0.00093	-0.00228	.00175
Stddev	.00006	.00061	.00016	.00062	.01559	.00018	.00060	.00004
%RSD	147.39	171.59	46.094	69.338	85.581	19.937	26.532	2.4176
#1	.00009	.00079	.00023	-0.00046	.02925	-0.00106	-0.00185	.00178
#2	-0.00000	-0.00008	.00045	-0.00134	.00719	-0.00080	-0.00271	.00172

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6189.1	86208.	5140.2
Stddev	11.6	62.	29.5
%RSD	.18705	.07194	.57333
#1	6197.2	86252.	5161.0
#2	6180.9	86164.	5119.3

Sample Name: 280-70428-A-1-F MS Acquired: 6/15/2015 22:07:39 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 281210 200.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04926	1.9307	.94064	1.0616	2.1882	.05026	1.9692	49.928	.10470
Stddev	.00026	.0007	.00202	.0003	.0018	.00005	.0039	.018	.00026
%RSD	.52240	.03799	.21429	.02388	.08074	.09711	.19938	.03537	.25263

#1	.04908	1.9312	.93921	1.0614	2.1869	.05030	1.9665	49.941	.10489
#2	.04944	1.9301	.94206	1.0618	2.1894	.05023	1.9720	49.916	.10452

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47726	.19365	.25236	.93338	47.733	1.0377	50.558	.50442	1.0223
Stddev	.00008	.00032	.00050	.00231	.023	.0009	.021	.00032	.0031
%RSD	.01585	.16636	.19662	.24776	.04876	.08240	.04100	.06279	.30287

#1	.47720	.19387	.25271	.93502	47.749	1.0371	50.573	.50464	1.0245
#2	.47731	.19342	.25201	.93175	47.716	1.0383	50.544	.50420	1.0202

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	53.536	.47476	9.8853	.50321	1.9968	.49848	1.9277	10.018	1.9535
Stddev	.556	.00018	.0121	.00053	.0058	.00153	.0002	.043	.0004
%RSD	1.0378	.03741	.12214	.10491	.28997	.30595	.00975	.43027	.02184

#1	53.928	.47488	9.8938	.50358	2.0008	.49956	1.9276	9.9872	1.9538
#2	53.143	.47463	9.8768	.50284	1.9927	.49740	1.9278	10.048	1.9532

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.99582	.95714	1.0420	1.9727	1.9982	.49491	.50696	.52524
Stddev	.00038	.00748	.0005	.0041	.0026	.00039	.00044	.00248
%RSD	.03815	.78118	.05168	.20839	.12820	.07818	.08594	.47235

#1	.99609	.96243	1.0416	1.9756	2.0000	.49518	.50727	.52349
#2	.99555	.95186	1.0424	1.9698	1.9964	.49464	.50666	.52700

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5968.0	82230.	5166.4
Stddev	8.9	113.	.9
%RSD	.14967	.13784	.01708

#1	5961.7	82310.	5165.8
#2	5974.4	82150.	5167.0

Sample Name: 280-70428-A-1-G MSD Acquired: 6/15/2015 22:10:03 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281210 200.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05012	1.9407	.94758	1.0670	2.2032	.05070	1.9817	50.390	.10477
Stddev	.00037	.0008	.00335	.0007	.0016	.00007	.0022	.021	.00025
%RSD	.74554	.03927	.35316	.06228	.07330	.14677	.11057	.04246	.24211

#1	.05039	1.9402	.94995	1.0665	2.2044	.05075	1.9802	50.405	.10459
#2	.04986	1.9412	.94522	1.0675	2.2021	.05064	1.9833	50.375	.10495

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47962	.19460	.25250	.95439	48.390	1.0453	50.691	.50623	1.0290
Stddev	.00097	.00006	.00022	.00150	.006	.0014	.049	.00120	.0001
%RSD	.20164	.02848	.08518	.15737	.01167	.12966	.09602	.23748	.01155

#1	.47893	.19456	.25265	.95332	48.386	1.0463	50.726	.50708	1.0289
#2	.48030	.19464	.25235	.95545	48.394	1.0444	50.657	.50538	1.0290

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	53.956	.47828	9.9225	.50310	2.0050	.49529	1.9481	10.164	1.9610
Stddev	.143	.00094	.0096	.00202	.0035	.00028	.0025	.057	.0012
%RSD	.26412	.19692	.09703	.40163	.17301	.05580	.12888	.56056	.05993

#1	54.056	.47761	9.9293	.50167	2.0025	.49509	1.9498	10.204	1.9601
#2	53.855	.47895	9.9157	.50453	2.0074	.49548	1.9463	10.123	1.9618

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0068	.96300	1.0457	1.9836	2.0041	.49714	.50821	.53010
Stddev	.0006	.00240	.0009	.0045	.0113	.00054	.00283	.00053
%RSD	.05872	.24936	.08687	.22791	.56478	.10836	.55770	.10008

#1	1.0072	.96470	1.0463	1.9804	2.0121	.49752	.51021	.52973
#2	1.0063	.96130	1.0450	1.9868	1.9961	.49676	.50621	.53048

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5985.7	82075.	5181.2
Stddev	12.4	56.	70.1
%RSD	.20734	.06877	1.3526

#1	5994.5	82035.	5131.7
#2	5976.9	82115.	5230.8

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00135	49.024	-0.00280	.00813	-0.00019	.00007	.97712	.01075	-0.00131	.00094	.00036	.01931	48.994
Stddev	.00027	.135	.00204	.00044	.00032	.00007	.00113	.00116	.00015	.00029	.00004	.00004	.220
%RSD	19.837	.27606	72.749	5.4488	169.43	94.720	.11548	10.783	11.492	31.277	10.075	.22657	.44928

#1	.00154	49.119	-0.00136	.00844	-0.00042	.00012	.97792	.01157	-0.00120	.00114	.00038	.01928	49.150
#2	.00116	48.928	-0.00424	.00781	.00004	.00002	.97633	.00993	-0.00142	.00073	.00033	.01934	48.839

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00807	.00186	.00167	.00149	.00037	255.87	.00189	.00792	-0.00093	4.9052	.01158	.00510	.01192
Stddev	.00959	.00242	.00133	.00006	.00047	.48	.00013	.00085	.00002	.0041	.00116	.00019	.00342
%RSD	118.85	130.39	79.747	4.3588	126.56	.18907	6.8809	10.694	2.6037	.08431	9.9851	3.7999	28.685

#1	-0.00129	.00014	.00262	.00144	.00004	256.21	.00180	.00732	-0.00091	4.9082	.01076	.00496	.01434
#2	-0.01485	.00357	.00073	.00154	.00070	255.53	.00199	.00851	-0.00094	4.9023	.01239	.00523	.00950

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00039	.00054	4.7479	.00006	.00137	9.6151	.00222	-0.00132	.20728
Stddev	.00082	.00013	.0052	.00016	.00035	.0063	.00009	.00015	.00130
%RSD	209.65	23.722	.11035	259.51	25.613	.06550	4.2148	11.337	.62679

#1	.00097	.00064	4.7441	-0.00005	.00113	9.6195	.00215	-0.00143	.20636
#2	-0.00019	.00045	4.7516	.00017	.00162	9.6106	.00228	-0.00122	.20820

Check ?	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5979.2	81279.	5112.1
Stddev	2.8	226.	21.1
%RSD	.04759	.27834	.41330

#1	5981.2	81119.	5097.2
#2	5977.2	81439.	5127.1

Sample Name: ccv-3330457 Acquired: 6/15/2015 22:15:03 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49728	.49936	.91423	.48831	.52946	.48855	-.05976	5.0408	.50887	.47624	.47563	.48496	2.3119
Stddev	.00033	.00141	.00326	.00001	.00196	.00245	.00223	.1412	.00092	.00045	.00031	.00026	.0122
%RSD	.06678	.28333	.35682	.00163	.36948	.50050	3.7247	2.8013	.18110	.09452	.06437	.05285	.52604

#1	.49751	.50036	.91654	.48832	.52808	.48682	-.06134	5.1406	.50822	.47592	.47542	.48514	2.3033
#2	.49704	.49836	.91192	.48831	.53084	.49028	-.05819	4.9409	.50952	.47655	.47585	.48478	2.3205

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	46.630	1.0155	20.003	.49512	.47828	5.3072	.47862	.92731	1.0080	-.00835	.96618	.92853	4.8494
Stddev	.267	.0058	.016	.00028	.00099	.0397	.00040	.00427	.0014	.00002	.00579	.00673	.0371
%RSD	.57253	.57278	.08119	.05568	.20625	.74836	.08306	.46076	.13730	.18818	.59877	.72460	.76429

#1	46.441	1.0114	20.015	.49532	.47758	5.3353	.47834	.92429	1.0070	-.00834	.96209	.92378	4.8232
#2	46.819	1.0196	19.992	.49493	.47898	5.2791	.47890	.93033	1.0090	-.00837	.97027	.93329	4.8756

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass								
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.95476	.48845	.01657	.50532	.99514	.02711	.48130	.49833	.46927
Stddev	.00310	.00030	.00219	.00090	.00232	.03740	.00025	.00151	.00225
%RSD	.32454	.06165	13.207	.17728	.23279	137.96	.05123	.30289	.48038

#1	.95256	.48866	.01503	.50595	.99350	.05355	.48112	.49727	.46768
#2	.95695	.48823	.01812	.50468	.99678	.00066	.48147	.49940	.47086

Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6107.1	83747.	5154.1
Stddev	12.1	10.	41.5
%RSD	.19757	.01196	.80533

#1	6115.6	83754.	5183.5
#2	6098.6	83740.	5124.8

Sample Name: CCB Acquired: 6/15/2015 22:17:30 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W -0.00134	.01349	-0.00139	F .00521	-0.00015	.00000	.00103	.00643	.00009	-0.00020	.00016
Stddev	.00029	.00108	.00249	.00017	.00020	.00004	.00064	.00163	.00001	.00023	.00005
%RSD	21.784	7.9785	178.68	3.2267	132.58	3186.0	62.131	25.309	8.1068	114.68	30.826

#1	-.00154	.01273	-.00315	.00509	-.00001	-.00003	.00058	.00758	.00008	-.00036	.00019
#2	-.00113	.01425	.00037	.00533	-.00029	.00003	.00148	.00528	.00009	-.00004	.00012
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.00093			.00312							
Low Limit	-.00093			-.00312							

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00071	.00926	-0.08849	.00237	.00295	.00005	.00124	W .11596	.00020	.00097	-0.00076
Stddev	.00046	.00313	.03357	.00358	.00135	.00006	.00042	.01350	.00030	.00364	.00086
%RSD	64.930	33.788	37.940	151.03	45.630	126.83	33.948	11.642	151.28	374.53	113.70

#1	.00104	.01148	-.11223	-.00016	.00200	.00009	.00094	.12550	-.00001	.00355	-.00137
#2	.00039	.00705	-.06475	.00491	.00391	.00000	.00154	.10641	.00041	-.00160	-.00015
Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass						
High Limit								.09160			
Low Limit								-.09160			

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00163	-0.00055	-0.00219	.00530	-0.00090	-0.00004	.00167	.00034	-0.00052	-0.02360	-0.00062
Stddev	.00124	.00042	.00380	.00006	.00049	.00005	.00145	.00006	.00022	.01462	.00049
%RSD	76.041	76.461	173.56	1.1044	53.960	124.10	86.978	19.094	42.689	61.954	77.952

#1	.00075	-.00084	.00050	.00526	-.00056	-.00008	.00270	.00029	-.00037	-.01326	-.00097
#2	.00251	-.00025	-.00487	.00534	-.00125	-.00001	.00064	.00039	-.00068	-.03394	-.00028
Check ?	None	Chk Pass									
High Limit											
Low Limit											

Elem	Zn2062	Zr3391
Units	ppm	ppm
Avg	-0.00314	-0.00031
Stddev	.00002	.00059
%RSD	.48527	187.68
#1	-.00313	-.00073
#2	-.00315	.00010

Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6172.9	85335.	5101.7
Stddev	4.8	289.	1.4
%RSD	.07713	.33901	.02683
#1	6169.5	85540.	5102.7
#2	6176.3	85131.	5100.7

Sample Name: CCVL3330451 Acquired: 6/15/2015 22:20:10 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00944	.10906	.01577	.10240	.01057	.00110	.11589	.21548	.00563	.00998	.01002	.01600
Stddev	.00042	.00049	.00004	.00019	.00029	.00004	.00005	.00539	.00008	.00007	.00018	.00032
%RSD	4.4323	.44944	.24728	.18827	2.7198	3.9358	.04001	2.5034	1.4063	.67195	1.7868	1.9801

#1	.00973	.10871	.01574	.10226	.01077	.00114	.11586	.21929	.00558	.01003	.00990	.01577
#2	.00914	.10940	.01580	.10253	.01037	.00107	.11592	.21167	.00569	.00993	.01015	.01622

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09661	2.8685	F .01301	.22416	.01041	.01990	1.1851	.04083	2.7972	.00900	-.00072	W .00722
Stddev	.00108	.0888	.00147	.00008	.00000	.00019	.0017	.00002	.0089	.00007	.00609	.00038
%RSD	1.1169	3.0972	11.309	.03605	.00537	.94859	.13978	.05442	.31640	.74438	844.00	5.2162

#1	.09585	2.8056	.01405	.22422	.01041	.01977	1.1839	.04081	2.7909	.00895	.00358	.00748
#2	.09737	2.9313	.01197	.22410	.01041	.02003	1.1863	.04084	2.8034	.00905	-.00503	.00695

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Warn						
Value			.01000									.01000
Range			30.000%									-20.000%

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .00931	.52189	.10070	.01017	.01422	.01046	.01681	.06561	.00945	.01985	.01709
Stddev	.00152	.02958	.00051	.00009	.00236	.00036	.00126	.03424	.00081	.00072	.00095
%RSD	16.381	5.6670	.50395	.87762	16.621	3.4624	7.4700	52.188	8.5216	3.6117	5.5785

#1	.01038	.54280	.10106	.01011	.01589	.01021	.01770	.04140	.01002	.02035	.01776
#2	.00823	.50097	.10034	.01023	.01254	.01072	.01592	.08982	.00888	.01934	.01641

Check ?	Chk Fail	Chk Pass									
Value	.01500										
Range	-30.000%										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6203.6	86203.	5159.9
Stddev	15.8	211.	1.8
%RSD	.25404	.24505	.03546

#1	6192.5	86353.	5158.6
#2	6214.8	86054.	5161.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0065	.13665	.00290	.29922	.04731	.00004	.00151	87.228	.00008
Stddev	.00048	.00061	.00258	.00208	.00047	.00008	.00182	.152	.00013
%RSD	74.801	.44656	88.767	.69587	.99490	221.38	121.12	.17469	167.69

#1	-0.00099	.13622	.00108	.29774	.04764	.00009	.00022	87.336	.00017
#2	-0.00031	.13708	.00473	.30069	.04697	-.00002	.00279	87.120	-.00001

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00003	.00057	.00608	.06576	17.902	.04789	41.483	.04412	.00423
Stddev	.00030	.00014	.00032	.00160	.067	.00027	.078	.00005	.00018
%RSD	1007.5	24.898	5.2165	2.4332	.37390	.56565	.18912	.11668	4.1813

#1	.00024	.00067	.00585	.06689	17.855	.04770	41.538	.04408	.00411
#2	-.00018	.00047	.00630	.06462	17.949	.04808	41.427	.04415	.00436

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	174.15	.00212	.11169	-.00141	97.762	-.00226	-.00116	6.6090	-.00104
Stddev	.69	.00003	.00166	.00045	.674	.00073	.00020	.0012	.00039
%RSD	.39813	1.5287	1.4901	31.956	.68961	32.167	16.851	.01848	37.536

#1	174.65	.00214	.11051	-.00109	97.285	-.00278	-.00102	6.6081	-.00077
#2	173.66	.00209	.11286	-.00173	98.238	-.00175	-.00130	6.6098	-.00132

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.2477	-.00155	.00068	.00051	-.01831	.00058	.03820	.00113
Stddev	.0017	.00209	.00017	.00005	.00478	.00130	.00059	.00095
%RSD	.13400	134.97	24.243	9.4010	26.089	225.17	1.5343	83.890

#1	1.2489	-.00302	.00080	.00047	-.02168	-.00034	.03862	.00046
#2	1.2465	-.00007	.00057	.00054	-.01493	.00150	.03779	.00180

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5953.0	81293.	5143.0
Stddev	11.9	78.	15.2
%RSD	.19940	.09634	.29527

#1	5944.6	81349.	5132.2
#2	5961.4	81238.	5153.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0109	.45265	.00624	.26708	.14909	.00008	.00432	86.621	.00035
Stddev	.00016	.00068	.00158	.00103	.00071	.00002	.00069	.193	.00004
%RSD	14.439	.14914	25.342	.38445	.47489	26.470	16.030	.22223	11.555

#1	-0.00098	.45312	.00736	.26635	.14959	.00007	.00383	86.757	.00032
#2	-0.00120	.45217	.00513	.26780	.14859	.00010	.00481	86.485	.00037

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00033	.00219	.14901	.49012	16.967	.03906	33.857	.02253	.00424
Stddev	.00021	.00009	.00019	.00231	.113	.00069	.012	.00001	.00019
%RSD	62.318	3.9491	.12864	.47108	.66791	1.7565	.03595	.02911	4.5094

#1	.00019	.00225	.14887	.48849	17.047	.03955	33.848	.02253	.00410
#2	.00048	.00213	.14914	.49175	16.887	.03858	33.865	.02254	.00437

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	150.43	.00380	5.9726	-0.0047	72.101	-0.00180	-0.00405	6.2489	.00355
Stddev	.92	.00020	.0041	.00071	.140	.00179	.00184	.0219	.00106
%RSD	.61214	5.2239	.06920	153.03	.19418	99.355	45.433	.34980	29.765

#1	151.08	.00394	5.9697	-0.00097	72.002	-0.00054	-0.00275	6.2335	.00280
#2	149.78	.00366	5.9755	.00004	72.200	-0.00307	-0.00535	6.2644	.00429

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0492	.00055	.00646	.00158	-0.03846	.00139	.24169	.00564
Stddev	.0015	.00133	.00049	.00004	.00590	.00045	.00055	.00084
%RSD	.13882	242.39	7.6518	2.5311	15.346	32.102	.22933	14.844

#1	1.0502	-0.00039	.00611	.00155	-.04263	.00170	.24208	.00624
#2	1.0481	.00149	.00681	.00161	-.03429	.00107	.24130	.00505

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5964.2	82617.	5314.3
Stddev	20.8	226.	8.9
%RSD	.34824	.27309	.16773

#1	5978.9	82458.	5308.0
#2	5949.5	82777.	5320.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00161	.54439	.00191	.01800	.07416	.00005	-0.00027	39.402	-0.00002
Stddev	.00025	.00117	.00102	.00016	.00032	.00004	.00282	.010	.00000
%RSD	15.354	.21457	53.447	.88873	.43359	81.707	1060.5	.02593	2.8440

#1	-0.00144	.54522	.00119	.01789	.07393	.00002	.00173	39.409	-0.00002
#2	-0.00179	.54357	.00263	.01812	.07438	.00008	-.00226	39.395	-0.00002

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00033	.00050	.00278	.73960	1.5844	.00425	9.7968	.09321	.00184
Stddev	.00024	.00017	.00009	.00516	.0245	.00070	.0234	.00015	.00007
%RSD	71.451	34.743	3.0580	.69761	1.5434	16.361	.23919	.15910	3.8173

#1	.00017	.00038	.00272	.74325	1.6017	.00376	9.8134	.09331	.00189
#2	.00050	.00062	.00284	.73595	1.5671	.00475	9.7802	.09310	.00179

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	20.494	.00122	.03167	-0.00049	10.633	-0.00112	-0.00329	5.8738	-0.00048
Stddev	.337	.00030	.00021	.00135	.002	.00194	.00072	.0046	.00039
%RSD	1.6464	24.302	.65749	277.19	.02269	173.41	21.893	.07774	81.046

#1	20.733	.00101	.03182	.00047	10.635	-.00249	-.00278	5.8706	-0.00076
#2	20.256	.00143	.03152	-.00144	10.631	.00025	-.00380	5.8771	-0.00021

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.45123	.00042	.01140	.00034	-0.01304	.00095	-0.00004	.00031
Stddev	.00055	.00021	.00026	.00077	.01079	.00010	.00004	.00009
%RSD	.12215	49.654	2.3056	224.81	82.696	10.758	96.809	28.209

#1	.45162	.00027	.01122	-.00020	-.00542	.00103	-.00001	.00025
#2	.45084	.00056	.01159	.00089	-.02067	.00088	-.00007	.00037

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6171.4	85219.	5225.4
Stddev	6.3	341.	23.2
%RSD	.10128	.39980	.44394

#1	6175.9	84979.	5209.0
#2	6167.0	85460.	5241.8

Sample Name: 280-70448-C-2-B Acquired: 6/15/2015 22:30:32 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281210 200.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0096	.57034	-0.00159	.01708	.07060	.00009	-0.00313	37.912	.00012
Stddev	.00023	.00002	.00138	.00058	.00009	.00013	.00154	.025	.00005
%RSD	23.813	.00271	87.187	3.3797	.12871	148.40	49.242	.06575	46.785

#1	-0.00080	.57035	-0.00257	.01749	.07066	-0.00000	-0.00204	37.930	.00015
#2	-0.00112	.57033	-0.00061	.01668	.07053	.00018	-0.00422	37.895	.00008

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00000	.00061	.00277	.76394	1.5422	.00177	9.3809	.11216	.00164
Stddev	.00030	.00010	.00017	.00157	.0190	.00182	.0130	.00010	.00025
%RSD	19664.	15.897	6.0690	.20533	1.2300	102.64	.13834	.09356	15.258

#1	-0.00021	.00054	.00289	.76283	1.5287	.00306	9.3901	.11209	.00181
#2	.00021	.00068	.00265	.76505	1.5556	.00049	9.3717	.11224	.00146

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	18.632	.00167	.03163	-0.00097	10.330	-0.00187	-0.00036	6.0493	-0.00081
Stddev	.222	.00005	.00504	.00027	.008	.00084	.00196	.0034	.00014
%RSD	1.1920	3.0220	15.922	28.025	.08117	45.072	537.35	.05647	17.599

#1	18.475	.00170	.02807	-0.00116	10.324	-0.00247	.00102	6.0517	-0.00071
#2	18.789	.00163	.03519	-0.00078	10.335	-0.00128	-0.00175	6.0469	-0.00092

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.42333	.00186	.01346	-0.00049	-0.01319	.00049	.00017	.00050
Stddev	.00025	.00186	.00059	.00075	.02006	.00027	.00071	.00385
%RSD	.05945	100.29	4.3848	153.28	152.11	53.819	423.66	770.12

#1	.42315	.00054	.01304	.00004	.00100	.00031	.00067	-0.0222
#2	.42350	.00317	.01387	-0.00103	-0.02737	.00068	-0.00033	.00322

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6190.8	85406.	5281.0
Stddev	31.1	94.	2.2
%RSD	.50220	.11014	.04129

#1	6212.8	85473.	5279.4
#2	6168.8	85340.	5282.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0123	.68861	.00137	.01745	.07394	-0.00000	-0.00251	41.762	.00023
Stddev	.00063	.00042	.00559	.00012	.00001	.00001	.00143	.144	.00011
%RSD	50.864	.06040	408.08	.67224	.01711	203.15	56.894	.34441	49.578
#1	-0.00079	.68891	.00532	.01754	.07394	-0.00001	-.00150	41.864	.00015
#2	-0.00167	.68832	-.00258	.01737	.07395	.00000	-.00351	41.661	.00031

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00016	.00090	.00320	.96788	1.8985	.00509	8.9382	.15823	.00091
Stddev	.00019	.00006	.00043	.00187	.0957	.00099	.0056	.00018	.00012
%RSD	123.45	6.1549	13.564	.19325	5.0410	19.432	.06245	.11376	12.980
#1	-0.00002	.00086	.00350	.96656	1.8308	.00579	8.9422	.15810	.00082
#2	-0.00030	.00094	.00289	.96920	1.9662	.00439	8.9343	.15835	.00099

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.923	.00177	.05450	-0.00040	13.436	-0.00129	-0.00466	6.8334	-0.00100
Stddev	.600	.00033	.00370	.00172	.034	.00184	.00478	.0422	.00012
%RSD	3.5475	18.361	6.7937	434.24	.25267	142.94	102.66	.61781	12.393
#1	17.348	.00200	.05188	-.00161	13.412	-.00259	-.00128	6.8632	-.00109
#2	16.499	.00154	.05712	.00082	13.460	.00001	-.00804	6.8035	-.00092

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.42199	.00099	.01756	.00036	-.03582	.00138	.00050	.00311
Stddev	.00061	.00016	.00059	.00024	.04566	.00003	.00035	.00258
%RSD	.14428	16.240	3.3627	68.237	127.49	2.1446	69.169	82.967
#1	.42242	.00087	.01714	.00018	-.00353	.00136	.00026	.00128
#2	.42156	.00110	.01797	.00053	-.06810	.00141	.00074	.00493

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6187.9	84868.	5247.3
Stddev	15.4	16.	13.1
%RSD	.24812	.01905	.24975
#1	6198.7	84879.	5238.0
#2	6177.0	84857.	5256.5

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00132	49.478	-0.00294	.00535	-0.00055	.00004	.98430	.01287	-0.00124	.00095	.00025	.01983	49.442
Stddev	.00060	.154	.00001	.00100	.00035	.00010	.00239	.00743	.00037	.00015	.00007	.00030	.089
%RSD	45.275	.31209	.18041	18.585	62.581	289.11	.24329	57.718	29.587	15.649	28.688	1.5081	.17912

#1	.00090	49.369	-0.00294	.00606	-0.00031	-0.00004	.98599	.01812	-0.00150	.00085	.00030	.01962	49.505
#2	.00175	49.587	-0.00294	.00465	-0.00080	.00011	.98261	.00762	-0.00098	.00106	.00020	.02004	49.379

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.08766	.00201	-0.00233	.00162	-0.00162	259.03	.00200	.00636	-0.00221	4.9543	.01248	-0.00063	.01421
Stddev	.04662	.00060	.00137	.00009	.00020	.61	.00022	.00281	.00021	.0089	.00070	.00309	.02568
%RSD	53.180	29.769	58.707	5.6860	12.317	.23425	11.040	44.119	9.5946	.18037	5.6164	488.55	180.75

#1	-.05470	.00159	-.00330	.00169	-.00176	258.60	.00184	.00835	-.00236	4.9607	.01297	.00155	.03236
#2	-.12062	.00243	-.00136	.00156	-.00148	259.46	.00215	.00438	-.00206	4.9480	.01198	-.00282	-.00395

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00007	.00050	4.7816	-0.00010	.00079	9.6884	.00221	-0.00112	.21385
Stddev	.00008	.00003	.0035	.00017	.00091	.1173	.00025	.00007	.00178
%RSD	109.04	6.8947	.07404	177.41	114.58	1.2104	11.430	6.5172	.83168

#1	-0.00002	.00052	4.7791	-0.00022	.00143	9.7713	.00238	-0.00117	.21259
#2	-0.00013	.00048	4.7841	.00002	.00015	9.6055	.00203	-0.00107	.21511

Check ?	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5966.6	81242.	5146.5
Stddev	5.1	132.	14.6
%RSD	.08533	.16199	.28324

#1	5970.2	81335.	5156.8
#2	5963.0	81149.	5136.2

Sample Name: ccv-3330457 Acquired: 6/15/2015 22:38:19 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50410	.49956	.92642	.48911	.52982	.49160	-.05681	4.9425	.51342	.47827	.47827	.48938	2.3168
Stddev	.00156	.00151	.00030	.00022	.00043	.00059	.00215	.0073	.00041	.00021	.00065	.00089	.0034
%RSD	.30908	.30170	.03229	.04488	.08069	.11971	3.7820	.14843	.08049	.04290	.13523	.18170	.14784

#1	.50300	.50063	.92621	.48895	.53012	.49118	-.05529	4.9373	.51312	.47812	.47873	.48876	2.3193
#2	.50521	.49849	.92663	.48926	.52951	.49201	-.05833	4.9477	.51371	.47841	.47781	.49001	2.3144

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	46.991	1.0147	20.194	.49878	.48058	5.2788	.48088	.93911	1.0125	-.00378	.97936	.93829	4.8586
Stddev	.064	.0008	.031	.00006	.00021	.0066	.00091	.00380	.0000	.00113	.00363	.00196	.0001
%RSD	.13673	.07744	.15329	.01156	.04367	.12402	.18913	.40455	.00371	29.925	.37102	.20883	.00283

#1	46.945	1.0141	20.173	.49874	.48073	5.2741	.48152	.93642	1.0125	-.00298	.98193	.93968	4.8587
#2	47.036	1.0152	20.216	.49882	.48043	5.2834	.48024	.94179	1.0125	-.00458	.97679	.93691	4.8585

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass								
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.96108	.48756	.01859	.50608	1.0056	-.00309	.48532	.49938	.47278
Stddev	.00108	.00033	.00128	.00020	.0019	.04720	.00169	.00001	.00456
%RSD	.11279	.06853	6.8642	.03916	.18956	1529.6	.34726	.00170	.96356

#1	.96185	.48733	.01949	.50622	1.0069	-.03646	.48651	.49937	.46956
#2	.96032	.48780	.01769	.50594	1.0042	.03029	.48413	.49938	.47600

Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6100.3	83699.	5154.1
Stddev	.9	2.	15.1
%RSD	.01505	.00179	.29279

#1	6099.6	83698.	5164.8
#2	6100.9	83700.	5143.4

Sample Name: CCB Acquired: 6/15/2015 22:40:45 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0077	.00241	.00264	W .00243	W -0.0084	.00005	.00108	.00610	.00016	-0.0000	.00014
Stddev	.00013	.00044	.00153	.00040	.00010	.00014	.00047	.00294	.00018	.00025	.00001
%RSD	16.862	18.077	58.046	16.414	12.360	282.97	43.348	48.210	112.68	6275.6	4.0303

#1	-0.00086	.00211	.00373	.00271	-0.00076	-0.00005	.00141	.00402	.00003	-0.00018	.00014
#2	-0.00068	.00272	.00156	.00215	-0.00091	.00015	.00075	.00818	.00029	.00017	.00014

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.00156	.00058						
Low Limit				-.00156	-.00058						

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00094	-0.00145	-0.04043	.00141	.00047	-0.00001	.00084	W .11241	-0.00001	.00217	-0.00211
Stddev	.00044	.00143	.05044	.00006	.00317	.00006	.00010	.00445	.00012	.00075	.00046
%RSD	46.962	98.679	124.74	4.0635	678.69	1136.9	11.738	3.9546	945.34	34.659	21.960

#1	.00125	-0.00044	-0.0477	.00137	-0.00178	-0.00005	.00077	.11555	.00008	.00164	-0.00244
#2	.00063	-0.00246	-0.07610	.00145	.00271	.00004	.00091	.10926	-0.00010	.00271	-0.00178

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass						
High Limit								.09160			
Low Limit								-.09160			

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00103	-0.00129	-0.00103	.00469	-0.00018	-0.00004	-0.00055	.00054	-0.00155	-0.00639	-0.00064
Stddev	.00242	.00167	.00226	.00359	.00090	.00003	.00033	.00019	.00039	.00279	.00020
%RSD	235.64	129.26	218.78	76.606	499.75	86.600	58.877	35.081	25.457	43.702	31.409

#1	-0.00068	-0.00011	.00056	.00215	-0.00081	-0.00006	-0.00078	.00041	-0.00127	-0.00836	-0.00050
#2	.00274	-0.00247	-0.00263	.00723	.00045	-0.00002	-0.00032	.00068	-0.00182	-0.00441	-0.00079

Check ?	None	Chk Pass									
High Limit											
Low Limit											

Elem	Zn2062	Zr3391
Units	ppm	ppm
Avg	-0.00300	.00042
Stddev	.00033	.00014
%RSD	11.026	32.249
#1	-0.00276	.00052
#2	-0.00323	.00033

Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6186.5	85662.	5158.3
Stddev	12.4	167.	22.4
%RSD	.20006	.19547	.43512
#1	6195.3	85780.	5142.5
#2	6177.8	85543.	5174.2

Sample Name: CCVL3330451 Acquired: 6/15/2015 22:43:26 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00934	.10482	.01593	.10032	.01029	.00101	.11738	.21953	.00536	.01022	.00999	.01613
Stddev	.00090	.00062	.00381	.00029	.00001	.00007	.00218	.00483	.00015	.00010	.00011	.00021
%RSD	9.6456	.59090	23.932	.28927	.11021	7.2074	1.8540	2.2003	2.7700	.95989	1.1116	1.3191

#1	.00870	.10526	.01863	.10053	.01028	.00096	.11584	.22294	.00526	.01015	.01007	.01598
#2	.00997	.10438	.01324	.10012	.01029	.00106	.11892	.21611	.00547	.01029	.00991	.01628

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09245	2.8394	.01150	.21730	.01050	.01979	1.1692	.04030	2.7980	.00887	.00120	F .00674
Stddev	.00274	.0048	.00027	.00127	.00004	.00022	.0044	.00005	.0005	.00062	.00445	.00003
%RSD	2.9586	.16756	2.3096	.58660	.38043	1.0926	.37697	.12683	.01699	6.9777	371.42	.41948

#1	.09051	2.8361	.01131	.21640	.01053	.01963	1.1661	.04026	2.7977	.00931	.00434	.00672
#2	.09438	2.8428	.01169	.21821	.01047	.01994	1.1723	.04033	2.7983	.00844	-.00195	.00676

Check ?	Chk Pass	None	Chk Fail									
Value												.01000
Range												-30.000%

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .01071	48226	.09942	.01007	.01357	.01027	.01787	W .07409	.00961	.01969	.01730
Stddev	.00229	.01091	.00112	.00003	.00125	.00003	.00037	.01597	.00040	.00041	.00031
%RSD	21.380	2.2618	1.1252	.34154	9.2376	.25198	2.0960	21.563	4.1976	2.0574	1.7796

#1	.00909	.47455	.10022	.01010	.01446	.01029	.01814	.06279	.00989	.01941	.01708
#2	.01233	.48998	.09863	.01005	.01269	.01025	.01761	.08538	.00932	.01998	.01752

Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass					
Value	.01500							.06000			
Range	-20.000%							20.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6214.0	86062.	5188.7
Stddev	22.5	35.	11.2
%RSD	.36226	.04015	.21577

#1	6198.1	86087.	5196.6
#2	6229.9	86038.	5180.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0143	W .05550	-0.0150	F .01870	.00076	.00008	-0.0125	F .31381	.00027
Stddev	.00034	.00021	.00138	.00048	.00029	.00011	.00013	.00184	.00017
%RSD	24.075	.37296	91.975	2.5496	37.544	141.15	10.149	.58732	63.908
#1	-.00119	.05564	-.00053	.01837	.00056	.00000	-.00134	.31251	.00039
#2	-.00167	.05535	-.00248	.01904	.00096	.00015	-.00116	.31511	.00015
Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit		.05000		.01000				.20000	
Low Limit		-.05000		-.01000				-.20000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00004	.00100	.00210	W .06587	-.06312	-0.00037	F .11923	.00129	.00023
Stddev	.00048	.00008	.00036	.00107	.01113	.00164	.00232	.00007	.00005
%RSD	1239.7	8.3789	17.341	1.6313	17.633	437.16	1.9433	5.4753	21.396
#1	.00038	.00106	.00184	.06511	-.05525	-.00153	.11759	.00134	.00019
#2	-.00030	.00094	.00235	.06663	-.07099	.00078	.12087	.00124	.00026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit				.03000			.10000		
Low Limit				-.05000			-.10000		

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.19771	.00069	F .01576	.00012	.01027	-0.00172	-0.00264	F .10583	.00843
Stddev	.01157	.00006	.00100	.00070	.00587	.00145	.00182	.00115	.00003
%RSD	5.8538	8.1123	6.3587	565.66	57.120	84.550	68.661	1.0875	.38476
#1	.18953	.00073	.01646	.00062	.00612	-.00069	-.00136	.10665	.00846
#2	.20589	.00065	.01505	-.00037	.01442	-.00275	-.00393	.10502	.00841
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit			.01000					.10000	
Low Limit			-.01000					-.10000	

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00068	.00158	.00358	-.00023	.01115	-0.00008	.00123	.00295
Stddev	.00003	.00009	.00043	.00123	.02291	.00010	.00019	.00102
%RSD	4.6555	5.7236	12.118	525.67	205.50	114.10	15.640	34.474
#1	.00066	.00152	.00389	.00063	-.00505	-.00015	.00109	.00223
#2	.00070	.00164	.00327	-.00110	.02735	-.00002	.00136	.00367
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6300.7	87741.	5303.0
Stddev	6.7	162.	8.8
%RSD	.10637	.18467	.16673
#1	6295.9	87856.	5309.2
#2	6305.4	87627.	5296.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04653	1.8867	.88019	1.0482	2.0218	.04686	1.8595	46.793	.09750
Stddev	.00008	.0050	.00087	.0034	.0035	.00002	.0036	.027	.00017
%RSD	.17375	.26656	.09854	.32684	.17492	.04334	.19188	.05845	.17784
#1	.04659	1.8902	.87958	1.0458	2.0193	.04684	1.8620	46.773	.09762
#2	.04647	1.8831	.88080	1.0506	2.0243	.04687	1.8569	46.812	.09738

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.44990	.18285	.23894	.96069	44.814	.96973	47.024	.47232	.95187
Stddev	.00064	.00050	.00029	.00317	.006	.00604	.061	.00057	.00048
%RSD	.14335	.27176	.12130	.32962	.01391	.62240	.13056	.12161	.05060
#1	.45036	.18321	.23914	.95845	44.810	.96546	46.980	.47192	.95221
#2	.44945	.18250	.23873	.96293	44.819	.97400	47.067	.47273	.95153

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.069	.44762	9.2530	.46827	1.8509	.45415	1.7832	1.9329	1.8170
Stddev	.671	.00045	.0012	.00134	.0046	.00045	.0084	.0113	.0048
%RSD	1.3402	.10109	.01285	.28712	.24915	.09834	.47220	.58255	.26329
#1	49.595	.44794	9.2539	.46922	1.8477	.45447	1.7892	1.9409	1.8136
#2	50.544	.44730	9.2522	.46732	1.8542	.45384	1.7773	1.9250	1.8204

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.92904	.89963	.97259	1.8503	1.8718	.46361	.47160	.48624
Stddev	.00120	.00002	.00091	.0043	.0067	.00054	.00082	.00020
%RSD	.12954	.00253	.09353	.23073	.35798	.11657	.17381	.04178
#1	.92819	.89961	.97194	1.8472	1.8670	.46399	.47218	.48610
#2	.92989	.89965	.97323	1.8533	1.8765	.46322	.47102	.48639

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5990.7	82656.	5193.5
Stddev	18.2	14.	6.7
%RSD	.30423	.01634	.12961
#1	5977.8	82666.	5198.2
#2	6003.6	82647.	5188.7

Sample Name: 280-70703-a-1-a Acquired: 6/15/2015 22:51:07 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 281832 6010c S Q5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00114	56.653	.07315	.02813	2.7186	.00621	F - .05980	450.48	.04282
Stddev	.00035	.029	.00384	.00031	.0046	.00009	.00113	.11	.00027
%RSD	31.024	.05197	5.2555	1.0910	.17071	1.4820	1.8842	.02423	.61946
#1	.00089	56.674	.07587	.02792	2.7153	.00615	-.06059	450.56	.04300
#2	.00139	56.632	.07043	.02835	2.7219	.00628	-.05900	450.40	.04263
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							100.00		
Low Limit							-.02000		

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	271.441 {124}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.11588	.21976	3.9784	211.03	4.8962	.07483	19.923	9.3120	.00893
Stddev	.00048	.00037	.0032	.18	.0462	.00043	.007	.0220	.00014
%RSD	.41343	.16882	.08049	.08340	.94357	.56844	.03493	.23586	1.5796
#1	.11554	.22003	3.9806	211.15	4.9289	.07513	19.928	9.2965	.00883
#2	.11622	.21950	3.9761	210.90	4.8635	.07453	19.918	9.3275	.00903
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.57703	.17975	3.1742	1.4522	2.1790	.01110	.00893	3.2992	.17052
Stddev	.01002	.00029	.0046	.0024	.0051	.00028	.00212	.0674	.00048
%RSD	1.7372	.16158	.14423	.16701	.23361	2.5011	23.753	2.0421	.28394
#1	.58412	.17995	3.1775	1.4539	2.1826	.01130	.01043	3.3469	.17018
#2	.56994	.17954	3.1710	1.4505	2.1754	.01091	.00743	3.2516	.17086
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.60123	.03416	.71689	W - .01398	F - .14398	.13417	5.0774	.03436
Stddev	.00121	.00251	.00426	.00105	.02743	.00124	.0003	.00183
%RSD	.20157	7.3353	.59396	7.4900	19.051	.92396	.00523	5.3283
#1	.60037	.03238	.71990	-.01472	-.12459	.13329	5.0772	.03307
#2	.60208	.03593	.71387	-.01324	-.16338	.13504	5.0776	.03565
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				5.0000	50.000			
Low Limit				-.01000	-.10000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6314.2	85751.	5675.3
Stddev	1.3	63.	9.8
%RSD	.02028	.07401	.17220
#1	6313.3	85796.	5668.4
#2	6315.1	85706.	5682.2

Sample Name: 280-70703-a-1-aSD@5 Acquired: 6/15/2015 22:53:48 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281832 6010c S Q5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0070	12.502	.01555	.00800	.59160	.00138	W - .01068	100.91	.00932
Stddev	.00037	.043	.00225	.00029	.00078	.00010	.00134	.03	.00009
%RSD	53.006	.34223	14.496	3.5836	.13192	7.1162	12.550	.03320	.94986

#1	-0.0097	12.472	.01714	.00779	.59105	.00131	-.00973	100.94	.00939
#2	-0.0044	12.533	.01396	.00820	.59215	.00145	-.01162	100.89	.00926

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass					
High Limit							3.0000		
Low Limit							-.01000		

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	271.441 {124}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02580	.04802	.85506	46.964	.97335	.01648	4.5162	2.0859	.00161
Stddev	.00030	.00006	.00322	.027	.07322	.00047	.0034	.0032	.00011
%RSD	1.1529	.12670	.37684	.05821	7.5221	2.8283	.07533	.15157	6.8520

#1	.02559	.04798	.85734	46.945	.92158	.01615	4.5138	2.0882	.00169
#2	.02601	.04806	.85278	46.984	1.0251	.01681	4.5186	2.0837	.00153

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.13910	.04018	.67648	.32971	.45183	.00152	-.00117	.70161	.03784
Stddev	.00368	.00001	.00046	.00217	.00499	.00185	.00235	.04571	.00058
%RSD	2.6432	.02236	.06736	.65811	1.1033	122.29	201.25	6.5144	1.5242

#1	.14170	.04018	.67680	.32818	.44831	.00021	-.00283	.66929	.03824
#2	.13650	.04017	.67616	.33125	.45536	.00283	.00049	.73393	.03743

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.13209	.00876	.15391	-.00264	-.04826	.02807	1.1198	.00998
Stddev	.00000	.00044	.00119	.00072	.00256	.00035	.0013	.00175
%RSD	.00022	5.0513	.77404	27.471	5.2948	1.2456	.11451	17.552

#1	.13209	.00845	.15306	-.00315	-.05007	.02831	1.1207	.01122
#2	.13209	.00908	.15475	-.00213	-.04646	.02782	1.1189	.00874

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6229.8	85324.	5307.6
Stddev	16.7	206.	21.7
%RSD	.26819	.24171	.40906

#1	6241.6	85178.	5292.2
#2	6218.0	85469.	5322.9

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05009	115.83	.89236	.89545	5.8965	.05037	1.5235	W 620.93	.15463
Stddev	.00042	.49	.00869	.00173	.0149	.00000	.0011	1.13	.00038
%RSD	.84776	.42070	.97396	.19282	.25257	.00454	.07403	.18194	.24483
#1	.05039	115.49	.89851	.89667	5.8860	.05038	1.5227	621.73	.15489
#2	.04979	116.18	.88622	.89423	5.9071	.05037	1.5243	620.13	.15436
Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								500.00	
Low Limit								-.05000	

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	271.441 {124}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51974	.47472	4.8326	251.27	56.479	1.0557	76.574	8.6203	.88481
Stddev	.00082	.00090	.0121	.84	.220	.0034	.034	.0034	.00301
%RSD	.15835	.18875	.25129	.33341	.39004	.31914	.04377	.03954	.33997
#1	.52032	.47536	4.8412	250.68	56.323	1.0533	76.550	8.6178	.88694
#2	.51915	.47409	4.8241	251.86	56.635	1.0581	76.597	8.6227	.88268
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	48.736	.60334	12.093	5.3458	4.6582	.26815	1.6674	6.9558	1.6539
Stddev	.274	.00186	.040	.0198	.0016	.00202	.0086	.0715	.0042
%RSD	.56248	.30802	.33323	.36947	.03487	.75404	.51429	1.0281	.25127
#1	48.930	.60466	12.121	5.3597	4.6593	.26958	1.6734	7.0063	1.6568
#2	48.542	.60203	12.064	5.3318	4.6570	.26672	1.6613	6.9052	1.6509
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.6609	.86769	2.8503	1.5364	1.6151	.65502	W 11.479	.46740
Stddev	.0052	.00275	.0033	.0059	.0135	.00144	.021	.00072
%RSD	.31561	.31641	.11726	.38630	.83809	.21931	.18165	.15485
#1	1.6572	.86964	2.8480	1.5406	1.6056	.65401	11.464	.46689
#2	1.6647	.86575	2.8527	1.5323	1.6247	.65604	11.494	.46792
Check ?	Chk Pass	Chk Warn	Chk Pass					
High Limit							10.000	
Low Limit							-.00500	

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6135.0	82747.	5637.5
Stddev	14.8	226.	15.9
%RSD	.24091	.27274	.28235
#1	6124.6	82907.	5648.7
#2	6145.5	82588.	5626.2

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04981	116.21	.91560	.89233	W 13.031	.05085	1.5884	463.21	.17341
Stddev	.00033	.18	.00019	.00080	.036	.00026	.0025	4.33	.00009
%RSD	.66101	.15815	.02096	.08987	.27841	.50584	.15866	.93529	.05236
#1	.05004	116.08	.91547	.89176	13.005	.05067	1.5902	460.14	.17334
#2	.04957	116.34	.91574	.89289	13.057	.05104	1.5866	466.27	.17347
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					12.000				
Low Limit					-.01000				

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	271.441 {124}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.53257	.50625	W 12.191	402.34	55.366	1.0501	96.791	9.1475	.89400
Stddev	.00031	.00148	.000	.37	.003	.0030	.075	.0558	.00190
%RSD	.05910	.29276	.00262	.09179	.00586	.28359	.07770	.61000	.21252
#1	.53235	.50730	12.191	402.07	55.368	1.0480	96.844	9.1869	.89534
#2	.53280	.50520	12.191	402.60	55.364	1.0522	96.738	9.1080	.89265
Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			10.000						
Low Limit			-.01000						

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.109	.67864	12.081	3.0415	6.2618	.28149	1.6601	6.7146	1.7329
Stddev	.084	.00011	.021	.0031	.0118	.00194	.0037	.0133	.0016
%RSD	.17141	.01674	.17114	.10161	.18793	.68769	.22242	.19805	.09263
#1	49.050	.67872	12.066	3.0393	6.2701	.28012	1.6627	6.7240	1.7340
#2	49.169	.67856	12.095	3.0437	6.2535	.28285	1.6575	6.7052	1.7318
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.5167	.86750	2.2361	1.5526	1.6279	.66054	W 14.290	.47246
Stddev	.0026	.00033	.0008	.0017	.0148	.00088	.006	.00240
%RSD	.16889	.03779	.03548	.11086	.91126	.13310	.04312	.50788
#1	1.5149	.86727	2.2355	1.5538	1.6175	.66116	14.294	.47076
#2	1.5186	.86774	2.2366	1.5514	1.6384	.65992	14.285	.47416
Check ?	Chk Pass	Chk Warn	Chk Pass					
High Limit							10.000	
Low Limit							-.00500	

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6064.7	82987.	5602.1
Stddev	2.5	116.	35.1
%RSD	.04113	.14016	.62732
#1	6066.5	82905.	5626.9
#2	6063.0	83070.	5577.2

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01133	56.223	.24266	.11398	2.7453	.05003	F - .06367	456.70	.08815
Stddev	.00016	.284	.00490	.00030	.0129	.00009	.00470	7.26	.00019
%RSD	1.4506	.50531	2.0203	.26418	.47120	.17573	7.3795	1.5894	.21395

#1	.01145	56.022	.24613	.11419	2.7361	.04997	-.06035	451.57	.08828
#2	.01122	56.424	.23919	.11377	2.7544	.05009	-.06699	461.83	.08801

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							100.00		
Low Limit							-.02000		

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	271.441 {124}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.15355	.25676	3.8900	206.71	22.224	.16601	36.743	9.0582	.05217
Stddev	.00023	.00042	.0078	.52	.021	.0104	.022	.0580	.00043
%RSD	.14985	.16216	.20102	.25218	.09275	.62522	.05866	.64040	.82038

#1	.15339	.25646	3.8844	206.34	22.210	.16528	36.728	9.0172	.05187
#2	.15371	.25705	3.8955	207.08	22.239	.16674	36.758	9.0992	.05247

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	20.569	.21596	4.8624	1.4931	2.1576	.09996	.17535	7.6312	.25083
Stddev	.213	.00004	.0036	.0008	.0006	.00082	.00179	.0344	.00034
%RSD	1.0368	.01947	.07298	.05491	.02950	.81808	1.0184	.45047	.13424

#1	20.418	.21599	4.8599	1.4925	2.1572	.10053	.17409	7.6555	.25059
#2	20.720	.21593	4.8649	1.4936	2.1581	.09938	.17662	7.6069	.25107

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.62931	.20642	.75262	.14887	.28376	.17510	5.1456	.08423
Stddev	.00277	.00314	.00406	.00070	.00530	.00097	.0110	.00010
%RSD	.44011	1.5198	.53993	.46960	1.8680	.55434	.21411	.12429

#1	.62735	.20864	.74975	.14838	.28002	.17579	5.1533	.08415
#2	.63126	.20421	.75550	.14937	.28751	.17441	5.1378	.08430

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6279.6	85378.	5668.9
Stddev	11.9	134.	45.9
%RSD	.18990	.15748	.80977

#1	6288.0	85283.	5701.4
#2	6271.2	85473.	5636.5

Sample Name: 280-70703-a-2-a Acquired: 6/15/2015 23:04:41 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281832 6010c S Q5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0007	73.441	.05265	.01534	1.1538	.00769	F -0.08422	12.836	.00087
Stddev	.00026	.027	.00034	.00028	.0003	.00008	.00164	.004	.00017
%RSD	390.47	.03738	.64973	1.8162	.02565	1.0676	1.9459	.02991	19.913
#1	.00012	73.421	.05241	.01553	1.1536	.00775	-.08538	12.838	.00099
#2	-.00025	73.460	.05289	.01514	1.1540	.00763	-.08306	12.833	.00075
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit							100.00		
Low Limit							-.02000		

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	271.441 {124}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.13141	.11257	.07410	149.63	4.9559	.08603	8.2511	W 11.198	.00355
Stddev	.00005	.00044	.00018	.17	.0455	.00100	.0027	.031	.00005
%RSD	.03532	.38711	.24510	.11448	.91791	1.1615	.03218	.27948	1.4553
#1	.13138	.11288	.07397	149.50	4.9880	.08533	8.2529	11.176	.00358
#2	.13145	.11226	.07423	149.75	4.9237	.08674	8.2492	11.220	.00351
Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								10.000	
Low Limit								-.01000	

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.39691	.17599	2.2391	.11161	.67108	.00071	-0.00284	3.5200	.01013
Stddev	.01717	.00020	.0036	.00048	.00023	.00311	.00177	.0675	.00088
%RSD	4.3260	.11233	.16085	.42954	.03405	435.51	62.182	1.9173	8.7266
#1	.38477	.17613	2.2416	.11127	.67092	.00291	-.00159	3.5677	.01075
#2	.40905	.17585	2.2365	.11195	.67124	-.00148	-.00409	3.4722	.00950
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06724	.04486	.70359	W -0.01859	F -.21917	.16107	.34485	.02099
Stddev	.00031	.00086	.00333	.00079	.01952	.00001	.00090	.00103
%RSD	.45548	1.9063	.47341	4.2680	8.9044	.00464	.25979	4.9308
#1	.06702	.04547	.70594	-.01803	-.23297	.16108	.34549	.02026
#2	.06745	.04426	.70123	-.01916	-.20537	.16107	.34422	.02172
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				5.0000	50.000			
Low Limit				-.01000	-.10000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6982.4	94662.	5966.0
Stddev	2.5	72.	21.1
%RSD	.03579	.07560	.35427
#1	6984.1	94713.	5981.0
#2	6980.6	94612.	5951.1

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00057	63.536	.04552	.01449	.98650	.00650	F -.08051	24.046	.00097
Stddev	.00021	.265	.00089	.00012	.00167	.00003	.00011	.037	.00003
%RSD	37.129	.41657	1.9559	.83310	.16922	.47363	.14273	.15401	3.3921

#1	.00073	63.723	.04615	.01440	.98768	.00648	-.08043	24.072	.00095
#2	.00042	63.349	.04489	.01457	.98532	.00653	-.08059	24.020	.00099

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							100.00		
Low Limit							-.02000		

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	271.441 {124}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.12087	.07841	.06959	156.15	4.3020	.07292	7.5133	W 11.598	.00279
Stddev	.00035	.00009	.00087	.54	.0779	.00049	.0116	.032	.00012
%RSD	.29353	.11636	1.2433	.34592	1.8111	.67190	.15437	.27834	4.2713

#1	.12062	.07848	.06898	156.53	4.3571	.07327	7.5051	11.575	.00288
#2	.12112	.07835	.07020	155.77	4.2469	.07258	7.5215	11.621	.00271

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								10.000	
Low Limit								-.01000	

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.38856	.13755	1.8869	.10530	.53131	.00113	-.00227	4.1749	.01079
Stddev	.00297	.00018	.0020	.00076	.00168	.00103	.00010	.1278	.00076
%RSD	.76363	.12870	.10596	.72424	.31600	91.110	4.2655	3.0606	7.0051

#1	.38646	.13767	1.8883	.10476	.53012	.00185	-.00220	4.2653	.01026
#2	.39065	.13742	1.8855	.10584	.53249	.00040	-.00234	4.0846	.01133

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.07474	.04426	.70043	W -.01822	F -.21186	.14270	.28559	.02200
Stddev	.00017	.00004	.00262	.00159	.05064	.00053	.00064	.00015
%RSD	.22962	.09499	.37431	8.7338	23.900	.37183	.22500	.67531

#1	.07486	.04423	.69857	-.01710	-.24767	.14307	.28604	.02211
#2	.07462	.04429	.70228	-.01935	-.17606	.14232	.28514	.02190

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				5.0000	50.000			
Low Limit				-.01000	-.10000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6864.9	93405.	5871.9
Stddev	17.4	74.	13.9
%RSD	.25338	.07912	.23713

#1	6877.2	93353.	5862.1
#2	6852.6	93457.	5881.8

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00103	48.258	-.00146	.00480	.00027	.00006	.97361	.01470	-.00141	.00082	.00019	.01964	48.020
Stddev	.00014	.036	.00172	.00007	.00001	.00000	.00341	.00293	.00009	.00020	.00009	.00001	.059
%RSD	13.071	.07542	118.09	1.5544	1.8395	3.6468	.35065	19.908	6.6511	24.732	49.657	.06853	.12298

#1	.00094	48.284	-.00267	.00485	.00028	.00006	.97602	.01677	-.00148	.00068	.00026	.01963	48.061
#2	.00113	48.233	-.00024	.00474	.00027	.00006	.97119	.01263	-.00134	.00096	.00012	.01964	47.978

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.01214	.00392	-.00192	.00188	-.00137	253.73	.00194	.00443	-.00111	4.8773	.01390	-.00330	.01530
Stddev	.10566	.00268	.00094	.00000	.00016	.08	.00019	.00004	.00082	.0177	.00049	.00294	.00794
%RSD	870.08	68.283	48.936	.04747	11.371	.03310	9.6175	.87756	73.951	.36337	3.5288	89.098	51.908

#1	-.08686	.00203	-.00126	.00188	-.00126	253.79	.00207	.00446	-.00053	4.8647	.01355	-.00538	.00968
#2	.06257	.00582	-.00259	.00188	-.00148	253.67	.00181	.00441	-.00169	4.8898	.01425	-.00122	.02092

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00017	.00057	4.7284	.00021	-.00086	9.6009	.00196	-.00062	.20393
Stddev	.00004	.00003	.0321	.00009	.00117	.0442	.00014	.00012	.00166
%RSD	22.661	5.5796	.67798	40.218	136.68	.46041	6.9479	19.627	.81227

#1	.00020	.00060	4.7057	.00028	-.00003	9.5697	.00206	-.00054	.20276
#2	.00014	.00055	4.7511	.00015	-.00168	9.6322	.00187	-.00071	.20510

Check ?	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6074.3	81881.	5188.1
Stddev	5.8	467.	6.2
%RSD	.09597	.57003	.11983

#1	6070.2	82211.	5183.7
#2	6078.5	81551.	5192.5

Sample Name: ccv-3330457 Acquired: 6/15/2015 23:12:28 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48510	.49569	.93142	.48544	.52661	.48617	-.05594	4.8944	.50937	.47829	.47698	.49168	2.2840
Stddev	.00118	.00037	.00334	.00063	.00122	.00034	.00025	.0137	.00031	.00032	.00006	.00111	.0027
%RSD	.24297	.07558	.35862	.12921	.23245	.07002	.45069	.28066	.06148	.06698	.01218	.22517	.11849

#1	.48427	.49595	.93378	.48589	.52574	.48593	-.05576	4.8847	.50914	.47852	.47702	.49247	2.2859
#2	.48593	.49542	.92905	.48500	.52747	.48641	-.05612	4.9041	.50959	.47807	.47694	.49090	2.2821

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	46.748	1.0181	20.052	.49543	.48210	5.2203	.47933	.93811	1.0103	-.00717	.97680	.93909	4.8525
Stddev	.028	.0021	.022	.00005	.00127	.0092	.00017	.00132	.0001	.00472	.00012	.00559	.0331
%RSD	.06062	.20874	.11133	.01051	.26293	.17554	.03598	.14050	.01063	65.849	.01207	.59509	.68106

#1	46.768	1.0196	20.036	.49539	.48300	5.2268	.47921	.93904	1.0102	-.00383	.97688	.94304	4.8759
#2	46.728	1.0166	20.067	.49547	.48120	5.2138	.47945	.93718	1.0104	-.01051	.97672	.93513	4.8291

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass								
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.96612	.48577	.01669	.50260	1.0066	.03689	.48055	.49420	.46944
Stddev	.00104	.00035	.00111	.00117	.0018	.03455	.00029	.00258	.00086
%RSD	.10773	.07242	6.6636	.23222	.18081	93.643	.06130	.52166	.18391

#1	.96686	.48552	.01590	.50342	1.0079	.06132	.48076	.49238	.47005
#2	.96538	.48601	.01747	.50177	1.0053	.01246	.48034	.49603	.46883

Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6169.2	84849.	5187.3
Stddev	.2	64.	20.2
%RSD	.00352	.07507	.38975

#1	6169.0	84894.	5201.6
#2	6169.3	84804.	5173.0

Sample Name: CCB Acquired: 6/15/2015 23:14:53 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0076	.00012	.00147	W .00255	W -0.00073	.00009	.00242	.00722	.00018	-0.00015	.00005
Stddev	.00045	.00021	.00255	.00049	.00019	.00002	.00028	.00230	.00015	.00010	.00007
%RSD	58.820	182.10	173.35	19.378	26.372	27.155	11.580	31.771	83.940	69.357	146.90

#1	-.00107	-.00003	-.00033	.00290	-.00086	.00011	.00262	.00885	.00029	-.00022	-.00000
#2	-.00044	.00026	.00327	.00220	-.00059	.00007	.00222	.00560	.00007	-.00007	.00009

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.00156	.00058						
Low Limit				-.00156	-.00058						

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00103	-0.00066	-0.09656	W .00427	.00008	.00018	.00118	.07483	.00005	-0.00003	-0.00122
Stddev	.00034	.00298	.00589	.00064	.00357	.00009	.00010	.01145	.00002	.00119	.00016
%RSD	32.774	452.35	6.1044	15.001	4711.3	48.043	8.0987	15.302	43.261	4639.0	12.874

#1	.00127	-.00277	-.10072	.00472	-.00245	.00024	.00125	.08293	.00007	.00082	-.00111
#2	.00079	.00145	-.09239	.00382	.00260	.00012	.00111	.06674	.00004	-.00087	-.00133

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass						
High Limit				.00261							
Low Limit				-.00261							

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00603	.00037	-0.00319	.01655	-0.00075	-0.00005	.00077	W .00063	-0.00118	.00380	-0.00073
Stddev	.00200	.00044	.00002	.00174	.00004	.00011	.00118	.00010	.00069	.05256	.00022
%RSD	33.179	120.22	.55066	10.488	4.9104	226.14	152.41	16.264	57.868	1383.4	29.459

#1	-.00462	.00006	-.00321	.01778	-.00078	.00003	-.00006	.00070	-.00167	.04097	-.00088
#2	-.00745	.00068	-.00318	.01532	-.00073	-.00012	.00161	.00056	-.00070	-.03337	-.00058

Check ?	None	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass					
High Limit								.00060			
Low Limit								-.00060			

Elem	Zn2062	Zr3391									
Units	ppm	ppm									
Avg	-0.00282	W .00388									
Stddev	.00007	.00041									
%RSD	2.3924	10.559									

#1	-.00277	.00359									
#2	-.00287	.00417									

Check ?	Chk Pass	Chk Warn									
High Limit		.00238									
Low Limit		-.00238									

Int. Std.	Y_2243	Y_3600	Y_3774								
Units	Cts/S	Cts/S	Cts/S								
Avg	6251.6	86841.	5139.5								
Stddev	.5	60.	3.9								
%RSD	.00724	.06913	.07680								

#1	6251.9	86883.	5142.3								
#2	6251.3	86798.	5136.7								

Sample Name: CCVL3330451 Acquired: 6/15/2015 23:17:32 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00967	.10646	.01353	.09949	.01018	.00102	.11941	.21428	.00551	.00999	.01015	.01687
Stddev	.00029	.00019	.00139	.00006	.00010	.00016	.00180	.00386	.00014	.00025	.00017	.00013
%RSD	2.9956	.18025	10.307	.06334	.99434	15.330	1.5061	1.8029	2.6207	2.4695	1.6460	.77478

#1	.00946	.10633	.01452	.09954	.01025	.00113	.12068	.21701	.00561	.00981	.01027	.01697
#2	.00987	.10660	.01255	.09945	.01011	.00091	.11814	.21155	.00541	.01016	.01003	.01678

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09513	2.9669	F .01386	.22173	.01062	.01956	1.1254	.04073	2.8130	.00990	-.00365	.00822
Stddev	.00211	.0323	.00064	.00205	.00005	.00006	.0120	.00015	.0081	.00182	.00070	.00133
%RSD	2.2152	1.0896	4.5866	.92366	.45116	.32862	1.0660	.37032	.28816	18.406	19.240	16.227

#1	.09364	2.9897	.01341	.22318	.01059	.01960	1.1170	.04083	2.8187	.01119	-.00315	.00728
#2	.09662	2.9440	.01430	.22029	.01066	.01951	1.1339	.04062	2.8073	.00861	-.00414	.00917

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass						
Value			.01000									
Range			30.000%									

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01208	.51260	.09957	.01021	.01459	.01069	.01627	W .04707	.00906	.02009	W .01891
Stddev	.00387	.03679	.00169	.00017	.00124	.00015	.00034	.01717	.00048	.00004	.00052
%RSD	32.078	7.1777	1.6924	1.6314	8.4950	1.4345	2.1146	36.465	5.2719	.19270	2.7603

#1	.01482	.53862	.10076	.01033	.01372	.01058	.01603	.03494	.00940	.02011	.01928
#2	.00934	.48658	.09838	.01010	.01547	.01080	.01652	.05921	.00872	.02006	.01854

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn						
Value								.06000			.01500
Range								-20.000%			20.000%

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6268.8	87450.	5209.1
Stddev	3.6	88.	2.2
%RSD	.05775	.10008	.04314

#1	6271.3	87512.	5207.5
#2	6266.2	87388.	5210.7

Sample Name: mb 280-281913/1-a Acquired: 6/15/2015 23:20:07 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281417 6010B SOIL

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0067	.00472	-0.00192	.00204	.00056	.00008	-0.00048	F .24842	.00016
Stddev	.00014	.00002	.00014	.00079	.00065	.00007	.00091	.00537	.00000
%RSD	20.445	.36073	7.5202	38.627	115.77	88.087	188.39	2.1625	1.2852

#1	-0.00057	.00473	-0.00202	.00148	.00102	.00003	-0.00112	.25222	.00015
#2	-0.00077	.00471	-0.00182	.00260	.00010	.00012	.00016	.24462	.00016

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit								.20000	
Low Limit								-.20000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00031	.00062	.00205	W .03245	-0.09478	.00338	W .08193	.00042	.00046
Stddev	.00007	.00005	.00050	.00026	.02109	.00221	.00115	.00007	.00020
%RSD	22.513	8.3781	24.220	.79167	22.250	65.533	1.4075	16.141	43.634

#1	-0.00036	.00059	.00170	.03227	-.10970	.00181	.08274	.00047	.00060
#2	-0.00026	.00066	.00240	.03263	-.07987	.00494	.08111	.00037	.00032

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass
High Limit				.03000			.05000		
Low Limit				-.05000			-.05000		

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.13437	.00022	F .01131	-0.00055	.00339	-0.00223	-0.00418	.02760	.00544
Stddev	.00087	.00022	.00078	.00014	.00198	.00067	.00109	.00307	.00073
%RSD	.64599	100.72	6.8791	26.076	58.378	29.866	26.070	11.119	13.431

#1	.13499	.00006	.01186	-0.00065	.00479	-0.00270	-0.00341	.02977	.00595
#2	.13376	.00038	.01076	-0.00045	.00199	-0.00176	-0.00495	.02543	.00492

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass					
High Limit			.01000						
Low Limit			-.01000						

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00052	.00051	.00054	-0.00034	-0.02635	-0.00067	-0.00116	.00123
Stddev	.00012	.00094	.00035	.00074	.01612	.00003	.00013	.00274
%RSD	23.860	184.31	65.648	218.60	61.152	3.7405	11.218	223.30

#1	.00060	-0.00015	.00079	.00019	-.03775	-0.00065	-0.00125	.00316
#2	.00043	.00117	.00029	-0.00087	-.01496	-0.00069	-0.00107	-.00071

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6304.3	87639.	5221.3
Stddev	4.7	182.	3.1
%RSD	.07406	.20735	.05951

#1	6301.0	87511.	5219.1
#2	6307.6	87768.	5223.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04745	1.8233	.88077	.92372	2.0150	.04671	1.8651	46.857	.09750
Stddev	.00049	.0002	.00452	.00002	.0048	.00012	.0046	.096	.00003
%RSD	1.0287	.00991	.51320	.00234	.23746	.24877	.24505	.20452	.02923

#1	.04779	1.8234	.88396	.92371	2.0116	.04663	1.8683	46.789	.09752
#2	.04710	1.8232	.87757	.92374	2.0184	.04679	1.8618	46.925	.09748

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.45040	.18392	.23853	.90758	45.127	.97010	47.248	.47206	.95509
Stddev	.00009	.00033	.00044	.00027	.182	.00277	.051	.00071	.00042
%RSD	.02100	.17975	.18457	.03017	.40421	.28584	.10726	.15125	.04445

#1	.45033	.18369	.23821	.90778	44.998	.96814	47.212	.47156	.95539
#2	.45047	.18415	.23884	.90739	45.256	.97206	47.283	.47257	.95479

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.367	.44863	9.2893	.47070	1.8571	.45267	1.7927	1.4973	1.8223
Stddev	.141	.00050	.0187	.00043	.0031	.00156	.0016	.0146	.0000
%RSD	.28037	.11157	.20102	.09202	.16409	.34520	.08842	.97496	.00171

#1	50.467	.44899	9.3025	.47039	1.8592	.45377	1.7939	1.4869	1.8224
#2	50.267	.44828	9.2761	.47101	1.8549	.45156	1.7916	1.5076	1.8223

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.92830	.89738	.96696	1.8575	1.9028	.46441	.47266	.48382
Stddev	.00229	.00067	.00071	.0069	.0178	.00080	.00177	.00124
%RSD	.24680	.07463	.07342	.37107	.93544	.17242	.37462	.25650

#1	.92668	.89691	.96746	1.8623	1.9154	.46384	.47141	.48294
#2	.92992	.89786	.96646	1.8526	1.8902	.46497	.47391	.48470

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5973.1	82490.	5146.2
Stddev	7.5	9.	28.5
%RSD	.12475	.01120	.55322

#1	5978.4	82483.	5166.3
#2	5967.8	82496.	5126.1

Sample Name: 280-70488-d-1-e Acquired: 6/15/2015 23:25:10 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281417 6010B SOIL

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0076	72.993	.03743	.07295	.78786	.00282	F -1.2493	87.119	.00174
Stddev	.00069	.176	.00089	.00010	.00161	.00000	.0042	.123	.00017
%RSD	91.577	.24157	2.3689	.14125	.20492	.03631	.33530	.14097	9.5149

#1	-0.0027	72.868	.03680	.07288	.78672	.00282	-1.2463	87.033	.00186
#2	-0.0125	73.118	.03805	.07303	.78900	.00281	-1.2522	87.206	.00163

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							100.00		
Low Limit							-.02000		

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	271.441 {124}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06991	.11846	.28132	172.68	8.9042	.08277	48.577	2.9798	.00420
Stddev	.00003	.00010	.00068	.26	.0406	.00180	.010	.0020	.00005
%RSD	.04484	.08200	.24142	.15105	.45561	2.1793	.02079	.06786	1.2131

#1	.06989	.11853	.28084	172.49	8.8755	.08404	48.584	2.9784	.00424
#2	.06993	.11839	.28180	172.86	8.9329	.08149	48.569	2.9812	.00417

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.0819	.12230	7.2187	.06483	.55866	.00643	.00042	3.8354	.04028
Stddev	.0227	.00034	.0025	.00114	.00560	.00435	.00607	.0624	.00082
%RSD	.73662	.27650	.03411	1.7619	1.0019	67.599	1438.3	1.6255	2.0386

#1	3.0979	.12206	7.2170	.06564	.55470	.00336	-.00387	3.8795	.03970
#2	3.0658	.12254	7.2205	.06402	.56262	.00951	.00471	3.7914	.04086

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.57921	.06659	W 11.510	.00040	F -.10573	.43260	.42129	.13390
Stddev	.00116	.00038	.006	.00162	.03424	.00027	.00210	.00002
%RSD	.19952	.56783	.04886	401.41	32.386	.06179	.49790	.01274

#1	.57839	.06632	11.506	-.00074	-.08151	.43241	.41981	.13389
#2	.58003	.06685	11.514	.00155	-.12994	.43279	.42278	.13391

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit			10.000		50.000			
Low Limit			-.01000		-.10000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6438.1	87846.	5577.0
Stddev	1.8	223.	17.0
%RSD	.02847	.25362	.30451

#1	6436.8	88004.	5589.0
#2	6439.4	87688.	5565.0

Sample Name: 280-70488-d-1-eSD@5 Acquired: 6/15/2015 23:27:40 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281417 6010B SOIL

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0043	16.070	.00619	.01797	.17203	.00058	F - .28132	18.800	.00044
Stddev	.00010	.014	.00220	.00010	.00048	.00005	.00288	.045	.00011
%RSD	24.428	.08441	35.463	.58223	.28082	8.0293	1.0225	.23859	24.123
#1	-0.0035	16.060	.00464	.01789	.17237	.00055	-.28335	18.832	.00051
#2	-0.0050	16.080	.00775	.01804	.17169	.00061	-.27928	18.768	.00036
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit							100.00		
Low Limit							-.02000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01569	.02566	.06151	35.555	1.8491	.02045	10.560	.64749	.00107
Stddev	.00048	.00007	.00007	.107	.0378	.00144	.013	.00070	.00020
%RSD	3.0517	.27739	.10928	.30118	2.0454	7.0235	.11977	.10849	19.130
#1	.01535	.02561	.06155	35.631	1.8759	.01943	10.551	.64699	.00093
#2	.01603	.02571	.06146	35.480	1.8224	.02146	10.569	.64798	.00122
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.66743	.02714	1.5338	.01336	.10836	.00028	-.00219	.83336	.00809
Stddev	.00315	.00039	.0072	.00130	.00210	.00134	.00051	.00189	.00036
%RSD	.47152	1.4335	.47098	9.7039	1.9402	478.74	23.176	.22734	4.5031
#1	.66520	.02686	1.5287	.01428	.10985	-.00067	-.00255	.83202	.00835
#2	.66966	.02741	1.5390	.01244	.10688	.00122	-.00183	.83470	.00784
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.12679	.01882	2.4561	-.00037	-.04217	.09158	.08885	.02862
Stddev	.00005	.00073	.0058	.00090	.00051	.00062	.00021	.00271
%RSD	.03702	3.8730	.23769	241.26	1.1986	.68025	.24088	9.4593
#1	.12683	.01934	2.4520	-.00101	-.04252	.09202	.08900	.03053
#2	.12676	.01831	2.4603	.00026	-.04181	.09114	.08870	.02670
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6251.1	85919.	5184.3
Stddev	2.2	175.	24.7
%RSD	.03564	.20360	.47588
#1	6249.5	86043.	5166.9
#2	6252.7	85795.	5201.8

Sample Name: 280-70488-d-1-h du Acquired: 6/15/2015 23:30:13 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281417 6010B SOIL

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0058	68.787	.03281	.07313	.84782	.00271	F -1.2294	82.699	.00166
Stddev	.00017	.338	.00037	.00040	.00394	.00003	.0063	.315	.00004
%RSD	28.753	.49149	1.1129	.54857	.46498	1.2693	.51375	.38050	2.2640

#1	-0.0046	68.547	.03307	.07341	.84503	.00269	-1.2249	82.477	.00169
#2	-0.0070	69.026	.03256	.07284	.85061	.00273	-1.2339	82.922	.00164

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							100.00		
Low Limit							-0.2000		

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	271.441 {124}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06265	.13267	.15938	166.26	8.5768	.08065	46.550	3.1205	.00161
Stddev	.00072	.00017	.00034	.97	.0422	.00105	.100	.0050	.00015
%RSD	1.1438	.12603	.21557	.58508	.49149	1.2971	.21406	.16111	9.2349

#1	.06214	.13279	.15914	165.57	8.5470	.08139	46.480	3.1169	.00171
#2	.06315	.13255	.15963	166.95	8.6066	.07991	46.620	3.1240	.00150

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.6521	.12532	6.8128	.05622	.53837	.00485	-0.00386	3.6735	.03907
Stddev	.0394	.00026	.0168	.00132	.00015	.00063	.00331	.0318	.00061
%RSD	1.4843	.20697	.24613	2.3490	.02711	13.044	85.743	.86646	1.5729

#1	2.6243	.12550	6.8010	.05715	.53847	.00440	-.00152	3.6510	.03864
#2	2.6799	.12513	6.8247	.05528	.53827	.00530	-.00620	3.6960	.03951

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.56765	.04565	W 11.328	.00090	F -.11496	.41992	.37544	.12791
Stddev	.00237	.00186	.019	.00055	.01072	.00241	.00155	.00119
%RSD	.41739	4.0669	.16619	61.158	9.3211	.57458	.41325	.93177

#1	.56597	.04696	11.315	.00051	-.10738	.41822	.37435	.12707
#2	.56932	.04434	11.342	.00128	-.12254	.42163	.37654	.12875

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit			10.000		50.000			
Low Limit			-.01000		-.10000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6397.0	87744.	5504.9
Stddev	11.8	211.	17.5
%RSD	.18453	.24053	.31826

#1	6405.3	87893.	5517.3
#2	6388.7	87595.	5492.5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04485	92.343	.84909	.90481	2.7773	.04699	.35562	144.83	.09139
Stddev	.00029	1.618	.00367	.00138	.0452	.00056	.00482	2.45	.00019
%RSD	.63749	1.7516	.43190	.15226	1.6258	1.1834	1.3554	1.6939	.20251

#1	.04465	93.487	.84650	.90383	2.8092	.04738	.35221	146.56	.09152
#2	.04506	91.200	.85169	.90578	2.7454	.04660	.35903	143.09	.09126

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	271.441 {124}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47782	.29930	.40426	184.26	54.034	1.0145	96.523	3.7133	.86404
Stddev	.00041	.00106	.00038	3.14	.936	.0196	.199	.0057	.00034
%RSD	.08483	.35275	.09367	1.7022	1.7320	1.9285	.20664	.15484	.03934

#1	.47753	.29855	.40453	186.47	54.696	1.0283	96.664	3.7174	.86380
#2	.47810	.30004	.40400	182.04	53.373	1.0006	96.382	3.7093	.86428

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	52.298	.52720	15.404	.47753	2.2912	.25882	1.6361	4.6288	1.6487
Stddev	.398	.00006	.030	.00366	.0051	.00230	.0017	.1292	.0003
%RSD	.76164	.01088	.19241	.76681	.22277	.88969	.10650	2.7917	.01904

#1	52.579	.52716	15.383	.48011	2.2876	.25719	1.6348	4.7202	1.6484
#2	52.016	.52724	15.425	.47494	2.2948	.26045	1.6373	4.5375	1.6489

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.5848	.88079	W 13.696	1.6132	1.6100	.91593	.83787	.62148
Stddev	.0253	.00510	.018	.0018	.0184	.00258	.00665	.01047
%RSD	1.5961	.57857	.12819	.11157	1.1413	.28173	.79325	1.6841

#1	1.6027	.87718	13.708	1.6120	1.6230	.91775	.84257	.62888
#2	1.5669	.88439	13.683	1.6145	1.5970	.91410	.83317	.61408

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit			10.000					
Low Limit			-.01000					

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6382.1	87014.	5494.7
Stddev	7.2	140.	74.5
%RSD	.11332	.16068	1.3559

#1	6377.0	86915.	5442.0
#2	6387.2	87113.	5547.3

Sample Name: 280-70488-d-2-c Acquired: 6/15/2015 23:35:12 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 281417 6010B SOIL

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0068	79.559	.03422	.01555	.83974	.00253	F -1.8768	38.220	.00104
Stddev	.00033	.066	.00345	.00010	.00093	.00006	.0062	.047	.00007
%RSD	49.433	.08341	10.091	.62164	.11021	2.4724	.32943	.12184	6.9723

#1	-0.0044	79.513	.03178	.01549	.83909	.00257	-1.8725	38.187	.00110
#2	-0.0091	79.606	.03666	.01562	.84040	.00249	-1.8812	38.253	.00099

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							100.00		
Low Limit							-.02000		

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	271.441 {124}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08178	.11743	.13388	224.26	13.182	.08586	45.915	3.5842	.00314
Stddev	.00029	.00017	.00012	.54	.003	.00028	.076	.0098	.00043
%RSD	.35419	.14325	.08787	.24166	.01939	.32636	.16527	.27370	13.654

#1	.08198	.11755	.13396	223.87	13.180	.08606	45.968	3.5911	.00284
#2	.08157	.11732	.13379	224.64	13.183	.08566	45.861	3.5772	.00345

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.1041	.11468	7.9424	.07284	.44270	.00774	-0.0183	4.7943	.05431
Stddev	.0150	.00010	.0041	.00002	.00532	.00092	.00350	.0152	.00142
%RSD	.71353	.08618	.05150	.02154	1.2017	11.922	191.34	.31608	2.6176

#1	2.1147	.11461	7.9395	.07285	.44647	.00709	.00065	4.7836	.05532
#2	2.0934	.11475	7.9453	.07283	.43894	.00840	-.00430	4.8051	.05331

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.23677	.06334	W 16.910	.00218	F -.10993	.53969	.48097	.20795
Stddev	.00019	.00205	.044	.00103	.04032	.00124	.00072	.00317
%RSD	.08123	3.2321	.25918	47.235	36.679	.22916	.15050	1.5228

#1	.23663	.06189	16.879	.00145	-.08142	.54057	.48149	.20571
#2	.23691	.06478	16.941	.00291	-.13844	.53882	.48046	.21019

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit			10.000		50.000			
Low Limit			-.01000		-.10000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6670.2	91476.	5708.4
Stddev	9.3	372.	4.0
%RSD	.13937	.40704	.07012

#1	6676.8	91213.	5711.2
#2	6663.6	91740.	5705.6

Sample Name: 280-70488-d-3-c Acquired: 6/15/2015 23:37:48 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 281417 6010B SOIL

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0098	65.831	.02421	.01556	.74437	.00194	F -2.3892	55.154	.00119
Stddev	.00036	.002	.00359	.00056	.00009	.00005	.0038	.005	.00005
%RSD	37.177	.00350	14.839	3.6242	.01193	2.4996	.16020	.00859	4.2795

#1	-0.0124	65.833	.02167	.01516	.74444	.00190	-2.3919	55.151	.00123
#2	-0.0072	65.829	.02675	.01596	.74431	.00197	-2.3865	55.158	.00115

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							100.00		
Low Limit							-.02000		

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	271.441 {124}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08619	.08931	.15438	226.75	10.259	.07067	47.070	3.1854	.00263
Stddev	.00017	.00053	.00045	.34	.032	.00003	.094	.0034	.00036
%RSD	.19199	.59859	.29273	.15090	.30949	.03720	.20073	.10594	13.539

#1	.08607	.08893	.15406	226.50	10.281	.07065	47.137	3.1878	.00238
#2	.08631	.08968	.15470	226.99	10.236	.07069	47.003	3.1830	.00288

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.7547	.10782	8.9836	.03390	.65563	.00806	-.00061	4.6643	.06387
Stddev	.0133	.00031	.0123	.00158	.00042	.00057	.00121	.0477	.00026
%RSD	.48179	.29206	.13712	4.6650	.06379	7.0892	198.73	1.0227	.40961

#1	2.7640	.10759	8.9749	.03278	.65593	.00846	-.00146	4.6980	.06368
#2	2.7453	.10804	8.9923	.03502	.65534	.00766	.00025	4.6306	.06405

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.24714	.04754	W 20.547	.00281	W -.06301	.62455	.45066	.20622
Stddev	.00021	.00020	.016	.00088	.01362	.00104	.00107	.00149
%RSD	.08452	.43094	.07718	31.268	21.611	.16577	.23791	.72151

#1	.24699	.04768	20.536	.00343	-.07263	.62529	.44990	.20516
#2	.24729	.04739	20.558	.00219	-.05338	.62382	.45142	.20727

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit			10.000		45.000			
Low Limit			-.01000		-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6722.4	92082.	5738.8
Stddev	8.2	137.	3.2
%RSD	.12241	.14824	.05630

#1	6728.3	91986.	5736.6
#2	6716.6	92179.	5741.1

Sample Name: 280-70488-d-4-c Acquired: 6/15/2015 23:40:24 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 281417 6010B SOIL

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0098	68.647	.02391	.01028	.70088	.00210	F -2.1275	49.290	.00102
Stddev	.00036	.024	.00210	.00002	.00101	.00009	.0059	.036	.00009
%RSD	36.577	.03450	8.7982	.17823	.14394	4.4674	.27537	.07242	8.7219
#1	-.00123	68.630	.02243	.01030	.70159	.00203	-2.1316	49.265	.00108
#2	-.00073	68.663	.02540	.01027	.70016	.00217	-2.1234	49.316	.00096
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit							100.00		
Low Limit							-.02000		

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	271.441 {124}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08131	.07994	.12873	216.44	11.402	.07312	44.822	3.1720	.00160
Stddev	.00032	.00012	.00043	.31	.030	.00062	.004	.0001	.00003
%RSD	.39779	.14815	.33721	.14150	.26705	.84716	.00810	.00372	1.6556
#1	.08108	.08002	.12843	216.66	11.380	.07268	44.820	3.1721	.00162
#2	.08154	.07986	.12904	216.23	11.424	.07356	44.825	3.1719	.00158
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.1291	.10087	8.2243	.04048	.55620	.00609	F -.01073	3.8433	.05886
Stddev	.0102	.00009	.0115	.00002	.00265	.00123	.00242	.0072	.00020
%RSD	.47869	.09409	.13949	.06096	.47576	20.274	22.529	.18610	.34757
#1	2.1219	.10080	8.2161	.04049	.55433	.00522	-.01244	3.8484	.05872
#2	2.1363	.10094	8.2324	.04046	.55807	.00696	-.00902	3.8383	.05901
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							50.000		
Low Limit							-.01000		

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.20195	.05186	W 18.710	.00215	W -.08328	.54060	.42156	.22125
Stddev	.00032	.00320	.052	.00121	.03779	.00002	.00129	.00111
%RSD	.16025	6.1727	.27789	56.344	45.382	.00407	.30581	.50238
#1	.20218	.04959	18.673	.00129	-.05655	.54058	.42247	.22203
#2	.20172	.05412	18.747	.00300	-.11000	.54061	.42065	.22046
Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit			10.000		45.000			
Low Limit			-.01000		-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6683.6	91980.	5731.5
Stddev	17.2	127.	1.6
%RSD	.25687	.13757	.02744
#1	6695.7	92070.	5730.4
#2	6671.4	91891.	5732.6

Sample Name: 280-70488-d-5-c Acquired: 6/15/2015 23:43:00 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 281417 6010B SOIL

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0142	78.953	.02887	.01133	.89501	.00244	F -2.3056	55.894	.00101
Stddev	.00021	.003	.00037	.00020	.00048	.00006	.0033	.025	.00002
%RSD	14.840	.00373	1.2662	1.7390	.05364	2.2903	.14368	.04546	1.8070

#1	-0.0157	78.955	.02861	.01147	.89535	.00248	-2.3033	55.912	.00103
#2	-0.0127	78.951	.02913	.01119	.89467	.00240	-2.3080	55.876	.00100

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							100.00		
Low Limit							-0.2000		

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	271.441 {124}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09124	.08808	.15247	240.10	13.295	.08061	49.764	3.4701	.00167
Stddev	.00017	.00059	.00059	.28	.052	.00020	.124	.0053	.00003
%RSD	.18741	.67021	.39007	.11794	.38773	.24242	.24863	.15298	2.0691

#1	.09112	.08766	.15205	240.30	13.331	.08074	49.676	3.4664	.00165
#2	.09137	.08850	.15289	239.90	13.258	.08047	49.851	3.4739	.00170

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.8092	.10903	9.6441	.04905	.75924	.00768	W -.00891	4.2278	.06312
Stddev	.0119	.00047	.0052	.00018	.00043	.00078	.00049	.0201	.00143
%RSD	.42243	.43132	.05426	.36608	.05624	10.178	5.4898	.47455	2.2661

#1	2.8176	.10936	9.6404	.04918	.75894	.00713	-.00857	4.2136	.06210
#2	2.8008	.10870	9.6478	.04893	.75955	.00823	-.00926	4.2420	.06413

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass					
High Limit							5.0000		
Low Limit							-.00500		

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.24439	.05693	W 20.059	.00141	F -.10608	.59081	.49043	.25235
Stddev	.00014	.00069	.120	.00160	.00266	.00085	.00029	.00184
%RSD	.05695	1.2050	.59699	113.41	2.5054	.14321	.05839	.72998

#1	.24449	.05645	19.974	.00028	-.10796	.59021	.49023	.25365
#2	.24429	.05742	20.144	.00255	-.10421	.59141	.49063	.25105

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit			10.000		50.000			
Low Limit			-.01000		-.10000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6764.9	92763.	5830.2
Stddev	1.7	169.	9.0
%RSD	.02580	.18270	.15447

#1	6763.7	92883.	5836.6
#2	6766.2	92643.	5823.9

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00039	48.059	-0.00009	.00368	-0.00005	.00007	.95875	.01078	-0.00134	.00084	.00030	.01884	47.780
Stddev	.00004	.033	.00170	.00052	.00011	.00000	.00234	.00051	.00009	.00003	.00010	.00006	.073
%RSD	10.674	.06929	1983.0	14.267	227.78	.71224	.24384	4.7301	6.5425	3.8070	31.829	.32088	.15205

#1	.00036	48.083	.00112	.00405	.00003	.00007	.95710	.01042	-.00140	.00082	.00037	.01880	47.729
#2	.00042	48.036	-.00129	.00331	-.00013	.00007	.96041	.01115	-.00128	.00086	.00023	.01888	47.832

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.02596	.00629	-0.00091	.00159	-0.00169	251.35	.00171	.00317	.00076	4.7904	.01029	-0.00186	-0.01555
Stddev	.07723	.00150	.00165	.00002	.00006	.11	.00027	.00070	.00081	.0027	.00133	.00031	.00475
%RSD	297.50	23.907	181.68	1.4819	3.6100	.04287	15.887	22.253	107.36	.05614	12.931	16.535	30.539

#1	-.08057	.00735	.00026	.00160	-.00173	251.43	.00152	.00267	.00133	4.7885	.01123	-.00207	-.01219
#2	.02865	.00523	-.00207	.00157	-.00165	251.28	.00190	.00367	.00018	4.7923	.00935	-.00164	-.01891

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00036	.00045	4.6572	.00324	.00117	9.3902	.00195	-0.00107	.20119
Stddev	.00030	.00006	.0052	.00049	.00086	.0214	.00063	.00025	.00368
%RSD	85.012	13.829	.11231	15.141	73.780	.22804	32.174	23.697	1.8270

#1	.00014	.00050	4.6609	.00289	.00056	9.4054	.00239	-.00125	.19859
#2	.00057	.00041	4.6535	.00359	.00178	9.3751	.00150	-.00089	.20379

Check ?	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6000.4	82046.	5062.0
Stddev	.4	22.	1.6
%RSD	.00655	.02661	.03225

#1	6000.7	82031.	5060.9
#2	6000.2	82062.	5063.2

Sample Name: ccv-3330457 Acquired: 6/15/2015 23:48:10 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48071	.49831	.93298	.47973	.52559	.48332	-.05543	4.9225	.50146	.48045	.47850	.48768	2.3246
Stddev	.00283	.00150	.00604	.00227	.00197	.00208	.00150	.0206	.00095	.00020	.00030	.00074	.0148
%RSD	.58897	.30166	.64769	.47313	.37576	.42941	2.7127	.41853	.19004	.04060	.06287	.15183	.63636

#1	.47870	.49937	.93725	.48133	.52699	.48478	-.05436	4.9371	.50213	.48058	.47871	.48716	2.3351
#2	.48271	.49724	.92870	.47812	.52420	.48185	-.05649	4.9079	.50079	.48031	.47829	.48820	2.3142

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	47.326	1.0304	19.741	.49208	.48363	5.2149	.48129	.93631	1.0057	-.00802	.96657	.93374	4.7937
Stddev	.288	.0064	.027	.00005	.00133	.0399	.00069	.00032	.0022	.00316	.00557	.00457	.0102
%RSD	.60779	.62367	.13740	.01059	.27458	.76448	.14377	.03428	.22418	39.360	.57580	.48911	.21231

#1	47.529	1.0350	19.722	.49211	.48457	5.2431	.48178	.93653	1.0072	-.01025	.97051	.93697	4.8009
#2	47.123	1.0259	19.760	.49204	.48269	5.1867	.48080	.93608	1.0041	-.00579	.96264	.93051	4.7865

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass								
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.96471	.49108	.01560	.50147	1.0010	.03164	.47747	.49844	.47348
Stddev	.00082	.00199	.00105	.00024	.0031	.04742	.00021	.00041	.00269
%RSD	.08552	.40426	6.7023	.04700	.31107	149.90	.04424	.08152	.56728

#1	.96413	.49248	.01486	.50130	1.0032	.06517	.47732	.49815	.47158
#2	.96529	.48967	.01634	.50163	.99875	-.00190	.47762	.49873	.47538

Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6105.7	84574.	5072.5
Stddev	2.3	96.	48.8
%RSD	.03743	.11339	.96176

#1	6104.0	84506.	5038.0
#2	6107.3	84642.	5107.0

Sample Name: CCB Acquired: 6/15/2015 23:50:36 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W -0.0116	.00072	.00128	W .00201	W -0.00061	.00006	-0.00186	.00880	.00026	-0.00035	.00003
Stddev	.00011	.00014	.00173	.00015	.00074	.00001	.00196	.00078	.00015	.00006	.00024
%RSD	9.5914	19.725	135.09	7.6413	120.79	10.420	104.94	8.8060	56.709	18.463	907.42

#1	-.00124	.00082	.00250	.00212	-.00009	.00006	-.00325	.00935	.00037	-.00030	-.00015
#2	-.00109	.00062	.00006	.00190	-.00114	.00005	-.00048	.00825	.00016	-.00039	.00020

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.00093			.00156	.00058						
Low Limit	-.00093			-.00156	-.00058						

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00056	-0.00082	-0.08025	F .00638	.00313	.00010	.00102	.03116	-0.00013	.00039	-0.00055
Stddev	.00033	.00131	.06067	.00072	.00042	.00002	.00005	.01012	.00015	.00147	.00112
%RSD	59.058	159.86	75.599	11.267	13.483	20.022	4.5501	32.472	117.83	377.28	201.79

#1	.00032	.00011	-.03735	.00689	.00343	.00011	.00099	.03832	-.00002	-.00065	-.00135
#2	.00079	-.00174	-.12316	.00587	.00283	.00008	.00105	.02401	-.00023	.00143	.00024

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass						
High Limit				.00522							
Low Limit				-.00522							

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00511	.00059	-0.00176	.01138	-0.00027	.00009	.00055	W .00082	-0.00017	.01234	-0.00110
Stddev	.00166	.00201	.00247	.03184	.00019	.00013	.00058	.00014	.00092	.04362	.00022
%RSD	32.439	339.97	140.56	279.76	70.235	135.16	105.07	16.590	539.38	353.58	19.566

#1	-.00628	-.00083	-.00001	-.01113	-.00014	.00000	.00095	.00073	-.00082	-.01851	-.00095
#2	-.00394	.00201	-.00351	.03389	-.00041	.00018	.00014	.00092	.00048	.04318	-.00125

Check ?	None	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass					
High Limit								.00060			
Low Limit								-.00060			

Elem	Zn2062	Zr3391
Units	ppm	ppm
Avg	-0.00283	W .00281
Stddev	.00021	.00047
%RSD	7.4211	16.604
#1	-.00298	.00314
#2	-.00269	.00248

Check ?	Chk Pass	Chk Warn
High Limit		.00238
Low Limit		-.00238

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6209.1	86063.	5060.2
Stddev	7.1	79.	11.0
%RSD	.11370	.09206	.21824
#1	6214.1	86119.	5052.4
#2	6204.1	86007.	5068.0

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00938	.10631	.01548	.09875	.01003	.00110	.11708	.21172	.00538	.01017	.01022	.01642
Stddev	.00047	.00060	.00118	.00069	.00018	.00019	.00318	.00117	.00007	.00005	.00005	.00010
%RSD	5.0193	.56815	7.6036	.70071	1.7688	17.468	2.7187	.55476	1.3052	.53938	.53530	.63513

#1	.00972	.10674	.01631	.09826	.01016	.00096	.11933	.21255	.00533	.01021	.01026	.01650
#2	.00905	.10588	.01465	.09924	.00991	.00123	.11483	.21089	.00543	.01013	.01018	.01635

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09702	2.9416	F .01366	.21875	.01043	.01960	1.0949	.04067	2.8143	.00769	-.00488	W .00745
Stddev	.00179	.0055	.00126	.00408	.00001	.00002	.0063	.00046	.0012	.00261	.00118	.00164
%RSD	1.8425	.18796	9.2270	1.8663	.12835	.11417	.57941	1.1204	.04122	33.994	24.077	22.052

#1	.09828	2.9455	.01455	.22164	.01044	.01958	1.0904	.04099	2.8135	.00584	-.00405	.00629
#2	.09576	2.9377	.01277	.21587	.01042	.01961	1.0994	.04035	2.8152	.00954	-.00571	.00861

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Warn						
Value			.01000									.01000
Range			30.000%									-20.000%

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01255	.49145	.09908	.01016	.01289	.01064	.01655	.06538	.00903	.01996	.01517
Stddev	.00085	.01564	.00023	.00005	.00009	.00041	.00034	.01615	.00099	.00047	.00031
%RSD	6.8074	3.1818	.23120	.50649	.68566	3.8341	2.0821	24.696	10.960	2.3538	2.0274

#1	.01315	.48039	.09924	.01012	.01295	.01093	.01679	.05396	.00833	.02029	.01496
#2	.01194	.50251	.09892	.01020	.01282	.01035	.01631	.07680	.00973	.01962	.01539

Check ?	Chk Pass										
Value											
Range											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6256.3	86537.	5073.3
Stddev	9.6	5.	6.6
%RSD	.15283	.00563	.13075

#1	6249.6	86541.	5078.0
#2	6263.1	86534.	5068.6

Sample Name: mb 280-281537/1-a Acquired: 6/15/2015 23:55:51 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281537 SOIL WC

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0087	.00784	-0.00198	.00118	.00002	.00008	.00144	F .21525	.00022
Stddev	.00044	.00027	.00276	.00079	.00005	.00004	.00036	.00160	.00013
%RSD	51.198	3.4432	139.07	67.023	209.08	57.701	25.295	.74528	59.276

#1	-0.0118	.00803	-0.0003	.00174	.00005	.00005	.00118	.21412	.00013
#2	-0.0055	.00765	-0.00393	.00062	-0.00001	.00011	.00170	.21639	.00031

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit								.20000	
Low Limit								-.20000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0014	.00058	.00149	.02100	-1.2457	.00483	W .07189	.00079	.00015
Stddev	.00018	.00004	.00045	.00080	.04740	.00012	.00132	.00002	.00005
%RSD	125.26	7.1790	29.951	3.8178	38.052	2.4458	1.8376	1.9476	29.495

#1	-0.0027	.00055	.00180	.02156	-.09105	.00491	.07282	.00078	.00012
#2	-0.0002	.00061	.00117	.02043	-.15809	.00475	.07095	.00080	.00019

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass					
High Limit							.05000		
Low Limit							-.05000		

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06532	.00065	F .01026	-0.00100	.00550	.00057	-0.00264	.02250	.00854
Stddev	.00157	.00033	.00048	.00079	.00515	.00067	.00330	.00800	.00036
%RSD	2.4016	51.500	4.7059	78.800	93.726	117.49	125.25	35.544	4.1942

#1	.06421	.00041	.01060	-.00156	.00185	.00104	-.00030	.01685	.00829
#2	.06643	.00089	.00992	-.00044	.00914	.00010	-.00497	.02816	.00879

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass					
High Limit			.01000						
Low Limit			-.01000						

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00054	.00009	.00083	-0.00109	-0.01151	-0.00087	-0.00033	.00101
Stddev	.00004	.00148	.00017	.00062	.01505	.00028	.00049	.00139
%RSD	7.4844	1591.2	19.827	56.561	130.73	31.788	147.92	137.10

#1	.00057	.00114	.00095	-.00066	-.00087	-.00106	.00002	.00199
#2	.00051	-.00095	.00072	-.00153	-.02216	-.00067	-.00068	.00003

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6278.3	87434.	5178.8
Stddev	16.2	157.	3.1
%RSD	.25727	.17968	.05918

#1	6266.9	87323.	5181.0
#2	6289.8	87545.	5176.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04867	1.8693	.91043	.93860	2.0644	.04771	1.9129	48.012	.09891
Stddev	.00050	.0050	.00479	.00176	.0102	.00018	.0053	.239	.00020
%RSD	1.0348	.26504	.52594	.18789	.49532	.37191	.27426	.49715	.20406

#1	.04903	1.8658	.91382	.93735	2.0716	.04758	1.9092	48.181	.09876
#2	.04832	1.8728	.90705	.93984	2.0571	.04783	1.9166	47.844	.09905

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46438	.18781	.24490	.92548	46.672	1.0031	48.185	.48336	.98475
Stddev	.00074	.00001	.00012	.00597	.154	.0038	.079	.00018	.00088
%RSD	.15974	.00421	.05035	.64459	.32900	.37982	.16300	.03803	.08950

#1	.46385	.18781	.24481	.92970	46.781	1.0058	48.240	.48349	.98413
#2	.46490	.18782	.24498	.92126	46.564	1.0004	48.129	.48323	.98538

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	51.472	.46250	9.5716	.48022	1.8999	.47075	1.8467	1.6029	1.8822
Stddev	.207	.00034	.0192	.00055	.0059	.00124	.0029	.0188	.0018
%RSD	.40223	.07452	.20015	.11509	.31289	.26360	.15529	1.1741	.09319

#1	51.326	.46226	9.5580	.48061	1.9041	.47163	1.8447	1.5896	1.8810
#2	51.618	.46274	9.5851	.47983	1.8957	.46988	1.8488	1.6162	1.8834

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.96099	.92698	.99098	1.8949	1.8929	.47599	.48468	.50044
Stddev	.00347	.00060	.00170	.0030	.0166	.00013	.00073	.00762
%RSD	.36113	.06496	.17166	.16017	.87508	.02800	.14994	1.5224

#1	.96345	.92741	.99219	1.8971	1.9046	.47608	.48519	.50583
#2	.95854	.92655	.98978	1.8928	1.8812	.47589	.48416	.49505

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5932.4	82145.	5044.2
Stddev	11.9	305.	19.1
%RSD	.20059	.37094	.37917

#1	5940.8	81930.	5030.7
#2	5924.0	82361.	5057.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04798	1.8527	.90948	.93622	2.0297	.04729	1.9065	47.286	.09849
Stddev	.00007	.0001	.00323	.00084	.0150	.00052	.0021	.413	.00035
%RSD	.14929	.00417	.35534	.09012	.73809	1.1080	.10828	.87319	.35348

#1	.04803	1.8528	.91176	.93682	2.0192	.04692	1.9050	46.994	.09824
#2	.04792	1.8527	.90719	.93562	2.0403	.04766	1.9080	47.578	.09873

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46110	.18639	.24338	.90875	46.124	.98724	47.747	.47865	.97680
Stddev	.00116	.00035	.00005	.01141	.384	.00635	.058	.00001	.00075
%RSD	.25100	.18512	.02151	1.2561	.83301	.64333	.12168	.00241	.07686

#1	.46028	.18615	.24335	.90068	45.853	.98275	47.788	.47866	.97627
#2	.46192	.18663	.24342	.91683	46.396	.99173	47.706	.47865	.97733

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.833	.45885	9.5221	.47565	1.8952	.46837	1.8443	1.6027	1.8637
Stddev	.644	.00076	.0218	.00089	.0004	.00060	.0053	.0027	.0028
%RSD	1.2673	.16615	.22871	.18607	.02097	.12902	.28947	.17022	.15145

#1	50.377	.45831	9.5067	.47503	1.8949	.46794	1.8405	1.6008	1.8617
#2	51.288	.45939	9.5375	.47628	1.8955	.46880	1.8481	1.6047	1.8657

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.94767	.92037	.97954	1.8846	1.9473	.47208	.47748	.49398
Stddev	.00690	.00002	.00073	.0039	.0135	.00003	.00000	.00582
%RSD	.72776	.00174	.07463	.20857	.69497	.00642	.00017	1.1778

#1	.94280	.92036	.97902	1.8818	1.9377	.47206	.47748	.48987
#2	.95255	.92039	.98006	1.8874	1.9569	.47210	.47747	.49810

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5966.7	82649.	5164.5
Stddev	11.9	105.	48.6
%RSD	.19954	.12669	.94040

#1	5975.1	82575.	5198.9
#2	5958.3	82723.	5130.2

Sample Name: 280-70480-b-4-f Acquired: 6/16/2015 0:03:20 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 281537 SOIL WC

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0038	7.9734	.01105	.01122	.19497	.00067	F - .25456	14.163	.00179
Stddev	.00045	.0241	.00183	.00056	.00000	.00002	.00264	.023	.00006
%RSD	118.45	.30216	16.549	5.0096	.00073	3.4286	1.0374	.16298	3.4243

#1	-0.0006	7.9563	.00975	.01162	.19497	.00068	-.25270	14.147	.00175
#2	-0.00070	7.9904	.01234	.01083	.19497	.00065	-.25643	14.179	.00184

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							100.00		
Low Limit							-.02000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01137	.01265	.02546	23.241	1.3973	.01085	4.7594	.33199	.01611
Stddev	.00034	.00009	.00016	.071	.0328	.00004	.0191	.00019	.00021
%RSD	2.9888	.71118	.63576	.30405	2.3447	.38657	.40048	.05788	1.3186

#1	.01161	.01272	.02557	23.191	1.4204	.01088	4.7728	.33186	.01596
#2	.01113	.01259	.02534	23.291	1.3741	.01082	4.7459	.33213	.01627

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.6906	.60758	2.1079	.39348	129.59	.00161	.01022	1.3604	.01640
Stddev	.0200	.00142	.0042	.00130	.11	.00090	.00060	.0225	.00019
%RSD	1.1824	.23439	.19671	.32964	.08685	56.078	5.9204	1.6560	1.1593

#1	1.6764	.60657	2.1050	.39440	129.67	.00097	.00979	1.3445	.01653
#2	1.7047	.60859	2.1108	.39256	129.51	.00224	.01064	1.3763	.01626

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05069	.05469	2.2217	-.00114	-.02984	1.3176	.19032	.03117
Stddev	.00001	.00058	.0026	.00068	.01544	.0025	.00003	.00082
%RSD	.01378	1.0572	.11534	59.555	51.739	.18773	.01516	2.6339

#1	.05069	.05428	2.2199	-.00163	-.04075	1.3194	.19034	.03175
#2	.05068	.05510	2.2235	-.00066	-.01892	1.3159	.19030	.03059

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6498.0	89730.	5495.6
Stddev	6.7	92.	43.8
%RSD	.10310	.10295	.79749

#1	6502.7	89796.	5526.6
#2	6493.2	89665.	5464.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0080	1.6047	.00122	.00337	.03932	.00018	F - .05054	2.9386	.00032
Stddev	.00030	.0005	.00320	.00020	.00006	.00004	.00275	.0062	.00000
%RSD	38.056	.03354	262.54	5.9898	.14139	20.314	5.4372	.21232	.95632

#1	-0.0101	1.6044	.00348	.00323	.03928	.00015	-.05248	2.9430	.00032
#2	-0.0058	1.6051	-.00104	.00352	.03935	.00021	-.04859	2.9342	.00031

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							100.00		
Low Limit							-.02000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00217	.00265	.00693	4.8310	.21074	.00632	1.0010	.06863	.00343
Stddev	.00001	.00002	.00005	.0012	.04081	.00220	.0091	.00022	.00003
%RSD	.34839	.59683	.66673	.02526	19.366	34.784	.91226	.31595	1.0033

#1	.00216	.00266	.00689	4.8318	.18188	.00787	.99459	.06848	.00340
#2	.00217	.00264	.00696	4.8301	.23959	.00476	1.0075	.06879	.00345

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.34132	.12510	.43080	.07935	26.694	-.00103	.00205	.28030	.00250
Stddev	.00249	.00017	.00061	.00178	.013	.00039	.00121	.00765	.00032
%RSD	.73039	.13505	.14136	2.2447	.04997	37.857	59.159	2.7284	12.981

#1	.34308	.12498	.43037	.08061	26.703	-.00075	.00119	.28571	.00273
#2	.33956	.12522	.43124	.07809	26.684	-.00131	.00291	.27489	.00227

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01053	.00933	.45157	-.00171	.00943	.26823	.03646	.00715
Stddev	.00003	.00011	.00058	.00095	.00687	.00041	.00011	.00167
%RSD	.33063	1.1555	.12926	55.428	72.850	.15306	.29618	23.394

#1	.01055	.00941	.45198	-.00104	.00457	.26794	.03638	.00833
#2	.01050	.00926	.45116	-.00238	.01428	.26852	.03654	.00597

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6437.2	89905.	5359.9
Stddev	1.8	109.	.1
%RSD	.02819	.12153	.00154

#1	6438.5	89983.	5359.9
#2	6435.9	89828.	5360.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0073	1.5764	.00300	.00313	.03873	.00022	F - .04871	2.8980	.00025
Stddev	.00010	.0019	.00076	.00016	.00004	.00005	.00151	.0048	.00004
%RSD	13.221	.11903	25.502	5.0991	.09133	20.954	3.0922	.16566	14.987

#1	-0.0079	1.5777	.00246	.00302	.03871	.00019	-.04764	2.9014	.00022
#2	-0.0066	1.5751	.00354	.00324	.03876	.00025	-.04977	2.8947	.00027

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							100.00		
Low Limit							-.02000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00217	.00263	.00652	4.7430	.17219	.00327	.98257	.06772	.00317
Stddev	.00002	.00001	.00036	.0038	.05391	.00047	.00721	.00026	.00035
%RSD	1.0585	.36158	5.4720	.08002	31.306	14.404	.73344	.38864	11.012

#1	.00219	.00262	.00627	4.7457	.21031	.00360	.98766	.06790	.00292
#2	.00215	.00264	.00678	4.7403	.13407	.00293	.97747	.06753	.00342

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.32288	.12276	.41868	.07884	26.009	-.00027	-.00025	.28709	.00258
Stddev	.00348	.00026	.00080	.00029	.003	.00011	.00017	.03126	.00001
%RSD	1.0786	.21168	.19036	.37285	.01210	40.158	68.420	10.888	.57680

#1	.32534	.12295	.41812	.07905	26.011	-.00035	-.00037	.30919	.00259
#2	.32041	.12258	.41924	.07863	26.007	-.00020	-.00013	.26499	.00257

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01033	.01252	.44319	-.00082	-.01233	.26406	.03672	.00664
Stddev	.00010	.00046	.00013	.00126	.00574	.00093	.00050	.00253
%RSD	.95959	3.6826	.02928	153.12	46.561	.35278	1.3482	38.117

#1	.01040	.01220	.44328	.00007	-.00827	.26472	.03707	.00843
#2	.01026	.01285	.44310	-.00172	-.01638	.26341	.03637	.00485

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6453.9	89954.	5344.1
Stddev	.4	50.	12.8
%RSD	.00576	.05565	.23888

#1	6453.7	89989.	5335.1
#2	6454.2	89918.	5353.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0029	.32700	.00114	.00205	.00705	.00005	W -0.1005	.58311	.00018
Stddev	.00007	.00184	.00083	.00025	.00006	.00004	.00062	.00055	.00006
%RSD	24.531	.56339	72.486	12.106	.78772	70.895	6.1867	.09432	33.309

#1	-0.00034	.32830	.00056	.00188	.00709	.00003	-.00961	.58273	.00014
#2	-0.00024	.32569	.00173	.00223	.00701	.00008	-.01049	.58350	.00022

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass					
High Limit							3.0000		
Low Limit							-.01000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00038	.00043	.00240	.95307	-.02463	.00489	.20235	.01363	.00072
Stddev	.00021	.00006	.00012	.00160	.07704	.00251	.00066	.00009	.00007
%RSD	53.819	12.954	4.8189	.16825	312.81	51.363	.32512	.65529	9.0541

#1	.00053	.00047	.00249	.95194	.02985	.00311	.20282	.01369	.00068
#2	.00024	.00039	.00232	.95420	-.07910	.00666	.20189	.01356	.00077

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06252	.02511	.08566	.01509	5.2352	.00005	-.00242	.06481	.00010
Stddev	.00235	.00030	.00044	.00066	.0148	.00081	.00137	.01185	.00083
%RSD	3.7543	1.1895	.50827	4.4002	.28249	1708.6	56.326	18.287	835.94

#1	.06086	.02490	.08535	.01556	5.2456	.00062	-.00339	.05643	.00069
#2	.06418	.02532	.08597	.01462	5.2247	-.00053	-.00146	.07319	-.00049

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00214	.00184	.08945	-.00039	.00572	.05233	.00498	.00015
Stddev	.00000	.00150	.00012	.00044	.01649	.00014	.00006	.00195
%RSD	.02636	81.215	.13929	113.85	288.21	.26153	1.2364	1282.6

#1	.00214	.00290	.08936	-.00070	-.00594	.05224	.00494	.00153
#2	.00214	.00078	.08954	-.00008	.01739	.05243	.00502	-.00123

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6403.7	89737.	5336.0
Stddev	1.2	16.	19.0
%RSD	.01948	.01808	.35560

#1	6404.6	89749.	5322.5
#2	6402.9	89726.	5349.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0119	.41180	-0.00066	.00159	.00925	.00015	W -0.1272	.73071	.00026
Stddev	.00016	.00246	.00055	.00013	.00004	.00002	.00047	.00331	.00007
%RSD	13.437	.59758	83.174	8.0505	.47273	15.748	3.7130	.45233	27.215

#1	-0.0131	.41354	-0.0027	.00150	.00928	.00017	-.01306	.73305	.00031
#2	-0.0108	.41006	-.00104	.00168	.00921	.00014	-.01239	.72838	.00021

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass					
High Limit							3.0000		
Low Limit							-.01000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00025	.00070	.00204	1.1990	-0.06067	.00287	.25681	.01734	.00086
Stddev	.00029	.00017	.00078	.0023	.03634	.00075	.00301	.00001	.00005
%RSD	118.56	24.702	38.022	.19275	59.898	26.137	1.1712	.04233	6.2106

#1	.00045	.00082	.00259	1.2006	-.03497	.00341	.25894	.01734	.00083
#2	.00004	.00058	.00149	1.1973	-.08636	.00234	.25468	.01735	.00090

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06789	.03167	.10700	.01991	6.5460	-0.00212	-0.00045	.09025	.00038
Stddev	.00799	.00002	.00097	.00149	.0061	.00008	.00189	.00012	.00006
%RSD	11.776	.05227	.90444	7.4877	.09257	3.7939	417.99	.13506	15.727

#1	.06224	.03168	.10631	.02097	6.5503	-.00207	-.00179	.09033	.00034
#2	.07354	.03166	.10768	.01886	6.5417	-.00218	.00088	.09016	.00042

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00268	.00378	.11260	-0.00140	.00657	.06576	.00917	.00141
Stddev	.00011	.00190	.00052	.00007	.00349	.00059	.00022	.00000
%RSD	4.0091	50.382	.45990	4.8231	53.087	.90132	2.4232	.04005

#1	.00275	.00243	.11297	-.00135	.00904	.06618	.00901	.00141
#2	.00260	.00512	.11224	-.00145	.00410	.06534	.00932	.00141

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6416.5	89542.	5360.5
Stddev	15.8	300.	8.4
%RSD	.24593	.33527	.15719

#1	6427.6	89329.	5354.5
#2	6405.3	89754.	5366.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0054	.08097	.00101	.00076	.00173	.00018	-0.00128	.15586	.00011
Stddev	.00052	.00096	.00077	.00058	.00015	.00010	.00395	.00181	.00010
%RSD	96.516	1.1831	76.168	76.356	8.7799	59.321	308.66	1.1639	85.172

#1	-0.0017	.08029	.00156	.00035	.00162	.00025	-.00407	.15715	.00018
#2	-0.00091	.08165	.00047	.00116	.00184	.00010	.00151	.15458	.00004

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0007	.00006	.00134	.23818	-1.1753	.00185	.05105	.00343	.00030
Stddev	.00033	.00006	.00016	.00098	.01582	.00083	.00208	.00001	.00004
%RSD	476.34	114.02	11.673	.41216	13.463	44.724	4.0676	.16147	12.846

#1	-0.0031	.00010	.00145	.23748	-.10634	.00243	.05252	.00343	.00033
#2	.00017	.00001	.00123	.23887	-.12872	.00126	.04959	.00344	.00028

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00216	.00607	.02426	.00342	1.2822	-0.00191	-0.00374	.03038	-0.00028
Stddev	.01123	.00043	.00060	.00056	.0097	.00245	.00047	.00487	.00030
%RSD	521.06	7.0886	2.4625	16.363	.75276	128.39	12.516	16.035	109.17

#1	-.01010	.00637	.02468	.00302	1.2754	-.00018	-.00341	.02694	-.00006
#2	.00579	.00576	.02383	.00381	1.2890	-.00364	-.00408	.03383	-.00049

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00061	.00187	.02254	-0.00074	.03142	.01263	-0.00039	.00270
Stddev	.00004	.00053	.00067	.00018	.01022	.00017	.00008	.00150
%RSD	7.0481	28.113	2.9547	24.550	32.533	1.3695	21.267	55.492

#1	.00064	.00224	.02301	-.00061	.03865	.01276	-.00045	.00376
#2	.00058	.00150	.02207	-.00086	.02419	.01251	-.00033	.00164

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6305.9	88132.	5190.1
Stddev	13.3	265.	22.4
%RSD	.21140	.30107	.43225

#1	6315.3	87944.	5206.0
#2	6296.5	88319.	5174.2

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00119	48.205	.00038	.00315	-.00009	.00003	.96047	.00908	-.00120	.00107	.00048	.01843	47.585
Stddev	.00004	.084	.00096	.00038	.00019	.00006	.00099	.00421	.00012	.00004	.00002	.00052	.238
%RSD	3.5500	.17383	254.07	12.159	215.90	160.21	.10320	46.369	9.7515	3.5205	4.1705	2.8234	.49958

#1	.00122	48.264	-.00030	.00288	-.00022	.00007	.96117	.00611	-.00112	.00110	.00049	.01880	47.753
#2	.00116	48.146	.00106	.00342	.00005	-.00000	.95977	.01206	-.00129	.00105	.00047	.01807	47.417

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.06533	.00607	.00055	.00148	-.00151	253.28	.00186	.00479	-.00082	4.8010	.01192	-.00069	-.00488
Stddev	.00364	.00140	.00023	.00003	.00019	.19	.00024	.00021	.00125	.0255	.00065	.00018	.00397
%RSD	5.5641	23.132	41.637	1.9120	12.814	.07362	12.846	4.4405	152.74	.53112	5.4909	25.413	81.471

#1	-.06790	.00508	.00039	.00146	-.00165	253.42	.00203	.00464	-.00170	4.8190	.01238	-.00057	-.00207
#2	-.06276	.00706	.00071	.00150	-.00137	253.15	.00169	.00494	.00007	4.7829	.01145	-.00081	-.00768

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00051	.00042	4.6774	.00047	.00042	9.4565	.00197	-.00130	.20389
Stddev	.00021	.00003	.0006	.00035	.00109	.0665	.00023	.00045	.00377
%RSD	41.680	8.1155	.01347	75.776	260.53	.70332	11.521	34.418	1.8496

#1	-.00066	.00045	4.6778	.00071	.00119	9.4095	.00213	-.00161	.20122
#2	-.00036	.00040	4.6769	.00022	-.00035	9.5036	.00181	-.00098	.20655

Check ?	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5957.5	81521.	5071.6
Stddev	.5	169.	7.2
%RSD	.00780	.20673	.14103

#1	5957.8	81402.	5066.5
#2	5957.2	81641.	5076.7

Sample Name: ccv-3330457 Acquired: 6/16/2015 0:21:33 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48483	.49484	.93712	.48395	.52697	.48443	-.05718	4.9085	.50668	.48079	.48027	.49301	2.2984
Stddev	.00008	.00128	.00219	.00045	.00024	.00018	.00139	.0069	.00084	.00096	.00001	.00160	.0021
%RSD	.01659	.25780	.23419	.09258	.04506	.03728	2.4296	.13991	.16655	.19936	.00196	.32511	.09220
#1	.48488	.49394	.93557	.48364	.52680	.48430	-.05816	4.9037	.50728	.48147	.48027	.49187	2.2999
#2	.48477	.49574	.93867	.48427	.52714	.48456	-.05619	4.9134	.50609	.48012	.48028	.49414	2.2969

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	47.453	1.0262	19.846	.49357	.48441	5.2525	.48262	.94104	1.0092	.00117	.97993	.94044	4.8296
Stddev	.037	.0006	.020	.00039	.00056	.0071	.00041	.00283	.0032	.00005	.00408	.00029	.0309
%RSD	.07749	.06320	.10253	.07898	.11574	.13559	.08555	.30036	.31944	3.9813	.41671	.03102	.64052
#1	47.479	1.0257	19.831	.49385	.48480	5.2575	.48233	.94304	1.0115	.00114	.98282	.94023	4.8514
#2	47.427	1.0267	19.860	.49330	.48401	5.2475	.48291	.93904	1.0069	.00120	.97704	.94064	4.8077

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.97041	.49150	.01881	.50129	1.0081	-.00165	.48087	.49244	.47371
Stddev	.00058	.00058	.00066	.00021	.0025	.01701	.00051	.00112	.00179
%RSD	.05988	.11714	3.4859	.04213	.24391	1030.4	.10502	.22747	.37738
#1	.97082	.49109	.01834	.50143	1.0098	.01037	.48051	.49323	.47497
#2	.97000	.49190	.01927	.50114	1.0064	-.01367	.48122	.49165	.47244

Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6204.0	85340.	5067.9
Stddev	7.6	394.	52.6
%RSD	.12200	.46126	1.0381
#1	6198.7	85061.	5030.7
#2	6209.4	85618.	5105.1

Sample Name: CCB Acquired: 6/16/2015 0:23:59 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0082	-0.0103	.00343	W .00194	W -0.00077	.00004	-0.00114	.00508	.00015	-0.00038	-0.00008
Stddev	.00001	.00051	.00129	.00007	.00012	.00006	.00102	.00080	.00010	.00002	.00021
%RSD	1.1893	49.830	37.467	3.8030	15.704	170.22	89.389	15.666	63.641	5.5230	259.88

#1	-0.00081	-0.00066	.00434	.00199	-0.00068	.00008	-0.00187	.00452	.00022	-0.00036	.00007
#2	-0.00082	-0.00139	.00252	.00189	-0.00086	-0.00001	-0.00042	.00564	.00008	-0.00039	-0.00023

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.00156	.00058						
Low Limit				-.00156	-.00058						

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00100	-0.00423	-0.03343	W .00383	.00229	.00001	.00092	.05153	.00002	.00237	-0.00067
Stddev	.00046	.00125	.02842	.00116	.00321	.00001	.00034	.00471	.00022	.00132	.00130
%RSD	46.147	29.569	85.003	30.248	140.35	270.93	37.199	9.1313	1421.8	55.493	196.10

#1	.00068	-0.00511	-0.1334	.00465	.00456	.00002	.00068	.05486	.00017	.00144	.00026
#2	.00133	-0.00334	-0.05353	.00301	.00002	-0.00000	.00116	.04820	-0.00014	.00330	-0.00159

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass						
High Limit				.00261							
Low Limit				-.00261							

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00141	.00188	.00172	.02468	.00004	-0.00001	.00041	.00039	-0.00119	.02442	-0.00084
Stddev	.00220	.00012	.00146	.02611	.00001	.00006	.00194	.00017	.00010	.00513	.00023
%RSD	155.50	6.1238	85.298	105.80	20.685	865.02	467.88	45.033	8.4908	21.030	27.682

#1	-0.0014	.00180	.00068	.04314	.00005	.00004	.00179	.00051	-0.00112	.02079	-0.00068
#2	.00297	.00196	.00275	.00622	.00003	-0.00005	-0.00096	.00026	-0.00126	.02805	-0.00101

Check ?	None	Chk Pass									
High Limit											
Low Limit											

Elem	Zn2062	Zr3391
Units	ppm	ppm
Avg	-0.00320	W .00321
Stddev	.00013	.00169
%RSD	4.0275	52.622
#1	-0.00311	.00201
#2	-0.00329	.00440

Check ?	Chk Pass	Chk Warn
High Limit		.00238
Low Limit		-.00238

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6202.2	86403.	5106.8
Stddev	14.4	3.	8.7
%RSD	.23242	.00381	.17014
#1	6212.3	86400.	5112.9
#2	6192.0	86405.	5100.6

Sample Name: CCVL3330451 Acquired: 6/16/2015 0:26:40 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00959	.10670	.01354	.09847	.01051	.00116	W .12059	.21156	.00540	.00963	.01018	.01678
Stddev	.00006	.00069	.00138	.00005	.00002	.00010	.00081	.00186	.00001	.00061	.00019	.00042
%RSD	.57753	.64527	10.204	.05416	.14459	8.7518	.67343	.87854	.25346	6.3050	1.8973	2.4807

#1	.00963	.10718	.01451	.09844	.01050	.00123	.12117	.21024	.00541	.01006	.01005	.01648
#2	.00955	.10621	.01256	.09851	.01052	.00109	.12002	.21287	.00540	.00920	.01032	.01707

Check ?	Chk Pass	Chk Warn	Chk Pass									
Value							.10000					
Range							20.000%					

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09180	2.8933	F .01512	.22364	.01048	.01940	1.1092	.04140	2.8357	.00922	-.00133	.00882
Stddev	.00064	.0007	.00068	.00527	.00002	.00001	.0100	.00008	.0035	.00094	.00104	.00033
%RSD	.69313	.02366	4.5090	2.3576	.15597	.07076	.89722	.20073	.12267	10.150	78.540	3.6877

#1	.09225	2.8928	.01464	.21991	.01050	.01939	1.1022	.04146	2.8381	.00988	-.00059	.00905
#2	.09135	2.8938	.01560	.22737	.01047	.01941	1.1163	.04134	2.8332	.00856	-.00207	.00859

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass						
Value			.01000									
Range			30.000%									

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01220	.49187	.10081	.01029	.01540	.01028	.01572	.05587	.00876	.01974	.01732
Stddev	.00054	.01486	.00027	.00009	.00018	.00014	.00080	.01069	.00051	.00061	.00056
%RSD	4.4566	3.0217	.27075	.90895	1.1782	1.4102	5.0821	19.129	5.7867	3.0799	3.2329

#1	.01181	.48136	.10061	.01022	.01553	.01038	.01628	.04831	.00841	.02017	.01693
#2	.01258	.50238	.10100	.01036	.01527	.01018	.01515	.06343	.00912	.01931	.01772

Check ?	Chk Pass										
Value											
Range											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6266.2	87227.	5138.6
Stddev	11.5	116.	4.8
%RSD	.18403	.13256	.09305

#1	6274.3	87308.	5142.0
#2	6258.0	87145.	5135.2

Sample Name: MB 280-280661/1-C Acquired: 6/16/2015 0:29:17 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: 6/10 Custom ID2: Custom ID3:
 Comment: 281095 200.7 FGD

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0090	.00130	-0.0052	W .00180	W -0.0078	-0.00001	.00029	.00991	.00020
Stddev	.00023	.00024	.00135	.00001	.00024	.00009	.00296	.00147	.00002
%RSD	25.488	18.688	260.14	.41490	30.276	838.07	1004.8	14.810	11.885
#1	-.00107	.00147	.00043	.00180	-.00062	-.00007	.00238	.01095	.00019
#2	-.00074	.00113	-.00147	.00181	-.00095	.00005	-.00180	.00888	.00022
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.00156	.00058				
Low Limit				-.00156	-.00058				

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0023	.00015	W .00155	.01045	-0.07269	W .00342	.00327	.00017	.00026
Stddev	.00013	.00009	.00017	.00069	.01796	.00091	.00427	.00002	.00030
%RSD	56.448	56.877	10.725	6.6224	24.711	26.604	130.36	11.269	115.26
#1	-.00014	.00009	.00167	.01094	-.05999	.00278	.00629	.00018	.00047
#2	-.00032	.00021	.00143	.00996	-.08539	.00407	.00026	.00015	.00005
Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit			.00136			.00261			
Low Limit			-.00136			-.00261			

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01535	.00028	.00044	-0.00138	.00707	.00038	-0.00243	.01969	-0.00084
Stddev	.00779	.00011	.00034	.00064	.00387	.00058	.00256	.02282	.00027
%RSD	50.747	38.680	77.041	46.363	54.749	151.90	105.07	115.91	32.105
#1	.00984	.00035	.00069	-.00183	.00433	-.00003	-.00063	.00355	-.00103
#2	.02085	.00020	.00020	-.00093	.00980	.00079	-.00424	.03582	-.00065
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00010	.00179	.00027	.00067	-0.01013	-0.00079	-0.00231	.00255
Stddev	.00001	.00018	.00040	.00092	.02466	.00029	.00021	.00189
%RSD	15.012	9.7920	149.69	137.70	243.35	37.097	8.9020	74.074
#1	.00009	.00191	.00056	.00002	.00730	-.00058	-.00246	.00121
#2	.00011	.00167	-.00002	.00132	-.02757	-.00100	-.00217	.00388
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6254.6	87058.	5114.5
Stddev	28.1	2.	18.4
%RSD	.44940	.00223	.36051
#1	6234.7	87056.	5101.4
#2	6274.4	87059.	5127.5

Sample Name: LCS 280-280661/2-C Acquired: 6/16/2015 0:31:57 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281095 200.7 FGD

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05160	1.9780	.96800	1.0249	2.1859	.05076	2.0226	50.642	.10482
Stddev	.00007	.0035	.00121	.0009	.0065	.00010	.0017	.085	.00007
%RSD	.14065	.17472	.12475	.08443	.29924	.19250	.08528	.16747	.06409

#1	.05166	1.9804	.96886	1.0243	2.1905	.05069	2.0214	50.702	.10477
#2	.05155	1.9755	.96715	1.0255	2.1813	.05083	2.0238	50.582	.10487

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48812	.19807	.25742	.95642	49.465	1.0616	51.032	.51035	1.0408
Stddev	.00064	.00025	.00015	.00333	.097	.0034	.089	.00066	.0015
%RSD	.13011	.12758	.05764	.34811	.19619	.31881	.17350	.12838	.14323

#1	.48767	.19825	.25753	.95877	49.534	1.0640	51.094	.51082	1.0418
#2	.48856	.19789	.25732	.95406	49.397	1.0592	50.969	.50989	1.0397

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	54.674	.48714	10.119	.50677	2.0123	.50468	1.9737	10.060	1.9885
Stddev	.014	.00001	.019	.00155	.0021	.00162	.0023	.017	.0001
%RSD	.02519	.00127	.18585	.30500	.10232	.32196	.11521	.16546	.00534

#1	54.664	.48713	10.106	.50568	2.0138	.50353	1.9753	10.048	1.9886
#2	54.683	.48714	10.132	.50786	2.0109	.50583	1.9721	10.072	1.9885

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0184	.97585	1.0490	2.0018	2.0587	.50294	.51395	.53212
Stddev	.0027	.00209	.0010	.0009	.0171	.00078	.00134	.00449
%RSD	.26338	.21463	.09801	.04291	.82855	.15428	.25977	.84357

#1	1.0203	.97733	1.0483	2.0024	2.0708	.50239	.51300	.53529
#2	1.0165	.97437	1.0498	2.0012	2.0467	.50349	.51489	.52894

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5978.6	82604.	5094.3
Stddev	1.4	257.	1.8
%RSD	.02301	.31096	.03449

#1	5977.7	82423.	5093.0
#2	5979.6	82786.	5095.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0070	.00630	.00157	.48046	.06608	.00004	.00110	58.770	.00016
Stddev	.00012	.00037	.00120	.00042	.00049	.00015	.00162	.135	.00007
%RSD	17.150	5.8046	76.230	.08839	.74025	392.15	146.84	.23009	44.035

#1	-0.0062	.00604	.00072	.48016	.06642	-0.0007	.00225	58.866	.00011
#2	-0.0079	.00656	.00241	.48076	.06573	.00014	-.00004	58.675	.00021

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0014	.00005	.00165	.02828	1.2849	.02567	4.7419	.00042	.01227
Stddev	.00015	.00011	.00018	.00040	.0498	.00209	.0060	.00001	.00021
%RSD	105.23	253.66	11.193	1.4274	3.8727	8.1467	.12563	1.8668	1.7334

#1	-0.0004	-0.0004	.00152	.02857	1.3201	.02419	4.7461	.00041	.01212
#2	-0.0025	.00013	.00178	.02800	1.2498	.02715	4.7377	.00042	.01242

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.9510	.00144	.00406	-0.0081	35.920	-0.0044	.00200	1.0946	-0.0031
Stddev	.0353	.00009	.00185	.00024	.003	.00019	.00105	.0033	.00121
%RSD	.89247	6.3648	45.496	29.530	.00830	44.092	52.446	.29948	391.49

#1	3.9759	.00138	.00537	-0.0064	35.918	-0.0057	.00126	1.0923	-0.0017
#2	3.9260	.00151	.00275	-0.0098	35.923	-0.0030	.00275	1.0969	.00055

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.24441	.00088	-0.00019	.00076	-0.03533	-0.00073	-0.00024	.00141
Stddev	.00041	.00141	.00014	.00116	.02117	.00014	.00069	.00176
%RSD	.16729	160.29	74.030	152.09	59.925	19.015	281.43	125.25

#1	.24470	-0.0012	-0.0029	.00158	-.05031	-0.00083	-0.00073	.00265
#2	.24412	.00188	-0.0009	-0.0006	-.02036	-0.00063	.00024	.00016

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6116.9	85080.	5167.4
Stddev	2.1	190.	9.4
%RSD	.03481	.22322	.18273

#1	6115.4	84946.	5174.1
#2	6118.4	85215.	5160.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0073	.03002	-0.0070	.09587	.01242	-0.00001	.00311	11.452	.00021
Stddev	.00061	.00058	.00569	.00008	.00010	.00013	.00057	.050	.00018
%RSD	83.191	1.9469	814.84	.08721	.81418	1106.3	18.234	.43362	83.527

#1	-0.00030	.02961	.00333	.09593	.01235	.00008	.00271	11.417	.00034
#2	-0.00116	.03044	-.00472	.09581	.01249	-.00011	.00351	11.487	.00009

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00005	.00002	.00073	-0.00111	.12519	.00783	.94436	.00005	.00246
Stddev	.00011	.00002	.00047	.00167	.01798	.00276	.00763	.00000	.00003
%RSD	209.75	87.110	64.646	150.52	14.359	35.191	.80766	2.9750	1.3490

#1	-0.00003	.00003	.00040	-.00229	.13790	.00978	.93896	.00005	.00244
#2	.00013	.00001	.00106	.00007	.11248	.00589	.94975	.00005	.00248

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.78082	.00022	.00267	-0.00222	6.9063	-0.00123	-0.00037	.22057	-0.00067
Stddev	.00657	.00017	.00117	.00120	.0059	.00163	.00120	.02715	.00008
%RSD	.84140	79.238	43.878	54.217	.08517	132.36	326.04	12.308	12.365

#1	.77618	.00034	.00184	-.00307	6.9104	-.00238	.00048	.20137	-.00062
#2	.78547	.00010	.00350	-.00137	6.9021	-.00008	-.00122	.23976	-.00073

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04776	.00174	.00014	.00009	-.03588	-0.00093	-0.00237	.00247
Stddev	.00015	.00078	.00025	.00053	.02489	.00075	.00018	.00101
%RSD	.30929	44.596	172.91	577.02	69.374	80.626	7.4128	40.755

#1	.04765	.00229	.00032	.00047	-.05348	-.00040	-.00224	.00318
#2	.04786	.00119	-.00003	-.00028	-.01828	-.00147	-.00249	.00176

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6210.8	86417.	5123.0
Stddev	.4	23.	11.6
%RSD	.00573	.02699	.22610

#1	6210.5	86434.	5131.2
#2	6211.0	86401.	5114.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02586	1.0402	.50264	1.0234	1.1969	.02609	1.0573	85.011	.05423
Stddev	.00038	.0007	.00117	.0033	.0044	.00004	.0011	.293	.00014
%RSD	1.4706	.06516	.23248	.32473	.36731	.16916	.10307	.34411	.24948

#1	.02559	1.0407	.50182	1.0211	1.2000	.02612	1.0581	85.218	.05433
#2	.02612	1.0398	.50347	1.0258	1.1938	.02606	1.0565	84.805	.05414

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.25277	.10297	.13493	.48966	26.976	.57455	30.761	.26388	.55200
Stddev	.00058	.00036	.00021	.00040	.177	.00216	.022	.00025	.00091
%RSD	.23035	.35116	.15651	.08096	.65468	.37637	.07039	.09553	.16556

#1	.25236	.10271	.13478	.48994	27.101	.57608	30.777	.26370	.55135
#2	.25318	.10322	.13508	.48938	26.851	.57302	30.746	.26405	.55264

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	32.432	.25354	5.2686	.26311	38.001	.26127	1.0181	6.3246	1.0398
Stddev	.363	.00005	.0106	.00002	.038	.00269	.0001	.0037	.0004
%RSD	1.1186	.01944	.20191	.00616	.09938	1.0311	.01457	.05836	.03877

#1	32.689	.25358	5.2611	.26310	37.974	.26318	1.0180	6.3272	1.0395
#2	32.176	.25351	5.2762	.26312	38.028	.25937	1.0182	6.3220	1.0400

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.77088	.50087	.53995	1.0457	1.0626	.25942	.26156	.27242
Stddev	.00311	.00042	.00144	.0003	.0201	.00018	.00121	.00423
%RSD	.40326	.08415	.26635	.03200	1.8934	.07045	.46261	1.5535

#1	.77308	.50057	.53894	1.0455	1.0484	.25955	.26071	.26942
#2	.76868	.50117	.54097	1.0460	1.0769	.25929	.26242	.27541

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5974.0	83464.	5063.0
Stddev	1.1	263.	11.3
%RSD	.01792	.31465	.22287

#1	5974.7	83650.	5055.1
#2	5973.2	83278.	5071.0

Sample Name: 69848-G-1-D MSD @2 Acquired: 6/16/2015 0:42:03 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281095 200.7 FGD

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02534	1.0168	.49313	1.0024	1.1674	.02555	1.0323	83.131	.05317
Stddev	.00033	.0015	.00285	.0004	.0020	.00037	.0006	.141	.00007
%RSD	1.3075	.14846	.57696	.03962	.16903	1.4463	.05872	.16972	.13168
#1	.02511	1.0179	.49111	1.0021	1.1660	.02529	1.0327	83.031	.05312
#2	.02558	1.0157	.49514	1.0027	1.1688	.02581	1.0319	83.230	.05322

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.24676	.10028	.13061	.48705	26.304	.55769	30.038	.25839	.54298
Stddev	.00010	.00006	.00065	.00251	.073	.00005	.000	.00056	.00063
%RSD	.04234	.05683	.49751	.51464	.27906	.00882	.00105	.21807	.11520
#1	.24669	.10032	.13107	.48527	26.252	.55766	30.038	.25879	.54343
#2	.24684	.10024	.13015	.48882	26.356	.55773	30.038	.25799	.54254

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	31.893	.24777	5.1434	.25734	37.074	.25730	.99675	6.1800	1.0179
Stddev	.044	.00076	.0043	.00109	.006	.00019	.00522	.0211	.0016
%RSD	.13837	.30828	.08317	.42221	.01592	.07233	.52363	.34131	.15871
#1	31.924	.24723	5.1404	.25810	37.078	.25717	.99306	6.1651	1.0190
#2	31.862	.24831	5.1464	.25657	37.070	.25744	1.0004	6.1949	1.0167

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.75349	.49353	.52988	1.0211	1.0137	.25374	.25702	.26886
Stddev	.00149	.00161	.00044	.0017	.0302	.00063	.00062	.00155
%RSD	.19817	.32633	.08303	.17028	2.9815	.24692	.24223	.57645
#1	.75243	.49467	.53020	1.0223	.99229	.25419	.25747	.26776
#2	.75454	.49239	.52957	1.0199	1.0350	.25330	.25658	.26996

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	5977.1	82705.	5101.0
Stddev	5.1	263.	2.6
%RSD	.08519	.31793	.05073
#1	5973.5	82519.	5102.8
#2	5980.7	82890.	5099.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04970	1.0024	.19689	.57024	.17289	.04972	-.00336	76.048	.05206
Stddev	.00032	.0012	.00018	.00007	.00071	.00014	.00121	.031	.00002
%RSD	.64681	.11553	.09357	.01308	.40912	.27569	35.986	.04123	.03647

#1	.04993	1.0032	.19702	.57019	.17239	.04982	-.00421	76.026	.05205
#2	.04948	1.0015	.19676	.57030	.17339	.04962	-.00250	76.070	.05208

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04807	.04932	.05287	.95902	20.822	.12567	24.296	.05082	.06165
Stddev	.00011	.00032	.00002	.00840	.138	.00044	.054	.00005	.00001
%RSD	.22416	.64813	.04124	.87639	.66110	.35348	.22035	.08954	.01729

#1	.04814	.04955	.05289	.95308	20.725	.12599	24.258	.05085	.06164
#2	.04799	.04910	.05286	.96496	20.919	.12536	24.334	.05079	.06165

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.267	.04961	2.0101	.09874	35.065	.10143	.19668	6.0084	.10086
Stddev	.457	.00040	.0032	.00087	.008	.00048	.00250	.0251	.00079
%RSD	1.7394	.80003	.15811	.88387	.02302	.47089	1.2699	.41826	.78257

#1	26.590	.04932	2.0079	.09935	35.071	.10177	.19845	6.0262	.10142
#2	25.944	.04989	2.0124	.09812	35.059	.10110	.19492	5.9906	.10031

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.28458	.19156	.05222	.20310	.48628	.04928	.20981	.05980
Stddev	.00034	.00161	.00014	.00134	.03703	.00009	.00039	.00201
%RSD	.12050	.84079	.26476	.66135	7.6154	.19113	.18631	3.3651

#1	.28433	.19270	.05212	.20215	.46010	.04922	.21009	.05838
#2	.28482	.19042	.05232	.20405	.51247	.04935	.20953	.06122

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6002.1	83365.	5094.1
Stddev	6.2	193.	.1
%RSD	.10369	.23174	.00163

#1	6006.5	83502.	5094.2
#2	5997.7	83229.	5094.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0068	.00699	-0.00088	.02118	.01257	.00013	.00051	3.6167	.00033
Stddev	.00031	.00002	.00096	.00040	.00004	.00007	.00046	.0035	.00016
%RSD	45.916	.26211	108.57	1.8678	.30002	51.992	91.121	.09685	50.046
#1	-0.0090	.00697	-0.0156	.02090	.01260	.00008	.00083	3.6191	.00044
#2	-0.0046	.00700	-0.0020	.02146	.01254	.00018	.00018	3.6142	.00021

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0016	.00019	.00129	.09439	1.3088	.00328	1.0629	.01409	.00052
Stddev	.00009	.00009	.00003	.00082	.0507	.00113	.0007	.00001	.00019
%RSD	54.654	46.273	2.2489	.87066	3.8754	34.550	.06648	.08890	36.043
#1	-0.0010	.00013	.00131	.09497	1.2729	.00409	1.0634	.01410	.00038
#2	-0.0022	.00025	.00127	.09381	1.3447	.00248	1.0624	.01408	.00065

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.1753	.00064	.00421	-0.00220	1.4678	-0.00435	-0.00282	1.9533	-0.0047
Stddev	.0088	.00001	.00083	.00080	.0012	.00217	.00082	.0301	.00113
%RSD	.21102	2.2661	19.601	36.403	.07963	49.835	29.142	1.5408	242.36
#1	4.1690	.00063	.00363	-0.0164	1.4670	-0.00282	-0.00224	1.9321	.00033
#2	4.1815	.00065	.00480	-0.0277	1.4686	-0.00589	-0.00340	1.9746	-0.0126

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02630	.00074	.00045	-0.00120	-0.02400	-0.00077	-0.00197	.00266
Stddev	.00014	.00013	.00010	.00171	.01465	.00005	.00022	.00027
%RSD	.55014	17.294	22.793	142.80	61.057	6.3353	10.970	10.226
#1	.02641	.00065	.00038	.00001	-.01364	-0.00080	-0.00212	.00247
#2	.02620	.00083	.00052	-0.00241	-0.03436	-0.00073	-0.00182	.00285

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6230.6	86778.	5155.6
Stddev	6.2	172.	6.1
%RSD	.09917	.19821	.11843
#1	6226.2	86900.	5159.9
#2	6235.0	86657.	5151.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0022	-0.0094	.00276	3.9108	.02188	.00015	-0.00103	307.38	.00076
Stddev	.00033	.00029	.00104	.0015	.00023	.00013	.00310	1.86	.00013
%RSD	150.08	2.9545	37.662	.03761	1.0290	82.580	301.14	.60642	17.330
#1	-0.0045	-.01015	.00349	3.9118	.02172	.00024	-.00322	306.06	.00085
#2	.00001	-.00974	.00202	3.9098	.02204	.00006	.00116	308.70	.00067

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0030	.01600	.00565	.00179	28.165	.06061	373.65	.02512	.00347
Stddev	.00042	.00001	.00061	.00074	.038	.00219	1.45	.00002	.00005
%RSD	141.85	.03153	10.797	41.081	.13478	3.6116	.38860	.08642	1.4566
#1	-0.0060	.01600	.00608	.00231	28.138	.06215	374.68	.02511	.00343
#2	.00000	.01600	.00521	.00127	28.192	.05906	372.62	.02514	.00351

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	104.71	.00374	.03275	W -.00384	F 594.35	-.00167	.06117	14.204	-.00089
Stddev	.16	.00016	.00062	.00075	.30	.00009	.00352	.060	.00043
%RSD	.14901	4.3835	1.8981	19.547	.05021	5.6546	5.7586	.42288	48.233
#1	104.82	.00362	.03231	-.00331	594.57	-.00160	.05868	14.162	-.00119
#2	104.60	.00385	.03319	-.00437	594.14	-.00174	.06366	14.247	-.00059

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				10.000	200.00				
Low Limit				-.00300	-.02000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.75935	.00172	-.00002	.00241	.01949	.00155	.00705	.00220
Stddev	.00127	.00089	.00050	.00069	.02238	.00036	.00016	.00065
%RSD	.16709	51.848	2743.3	28.604	114.84	23.022	2.2631	29.520
#1	.75845	.00236	-.00037	.00290	.03531	.00130	.00716	.00174
#2	.76025	.00109	.00034	.00193	.00366	.00180	.00693	.00266

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5580.9	77790.	5043.3
Stddev	6.5	160.	16.6
%RSD	.11630	.20514	.33000
#1	5585.5	77677.	5055.0
#2	5576.3	77903.	5031.5

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00070	49.386	-.00233	.01154	-.00061	.00005	.98983	.02190	-.00129	.00114	.00035	.01865	48.643
Stddev	.00097	.033	.00346	.00116	.00011	.00003	.00505	.00201	.00028	.00005	.00005	.00006	.129
%RSD	139.07	.06782	148.37	10.043	18.858	68.893	.50970	9.1644	21.423	4.6460	15.181	.34278	.26576

#1	.00138	49.409	.00011	.01236	-.00053	.00007	.98626	.02331	-.00149	.00118	.00031	.01861	48.734
#2	.00001	49.362	-.00478	.01072	-.00069	.00002	.99340	.02048	-.00110	.00111	.00039	.01870	48.551

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.14068	.00621	.00759	.00145	-.00186	258.34	.00198	.00543	-.00161	5.0198	.01492	.00442	.01425
Stddev	.02524	.00239	.00528	.00005	.00040	.47	.00030	.00353	.00136	.0075	.00302	.00193	.04106
%RSD	17.944	38.513	69.593	3.4657	21.599	.18142	14.969	65.034	84.431	.14970	20.238	43.753	288.17

#1	.12283	.00790	.00386	.00149	-.00215	258.01	.00219	.00293	-.00065	5.0251	.01278	.00579	.04329
#2	.15853	.00452	.01133	.00142	-.00158	258.67	.00177	.00792	-.00258	5.0145	.01705	.00305	-.01479

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00040	.00044	4.7940	.00081	-.00048	9.6864	.00203	-.00108	.20706
Stddev	.00041	.00018	.0019	.00019	.00107	.0565	.00040	.00027	.00129
%RSD	102.55	41.939	.04017	22.968	225.26	.58313	19.704	25.114	.62128

#1	-.00069	.00031	4.7954	.00068	.00028	9.6465	.00175	-.00089	.20797
#2	-.00011	.00057	4.7926	.00095	-.00123	9.7264	.00232	-.00128	.20615

Check ?	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5897.1	81424.	5053.9
Stddev	8.4	2.	17.3
%RSD	.14167	.00304	.34164

#1	5891.2	81422.	5041.7
#2	5903.0	81426.	5066.1

Sample Name: ccv-3323216 Acquired: 6/16/2015 0:54:59 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50479	.50397	.94394	.49661	.53143	.48837	-.05661	4.9408	.51017	.48819	.48648	.49444	2.3240
Stddev	.00027	.00191	.00338	.00017	.00035	.00023	.00074	.0099	.00030	.00075	.00014	.00017	.0000
%RSD	.05316	.37803	.35818	.03445	.06628	.04618	1.2999	.20100	.05800	.15403	.02860	.03409	.00040

#1	.50460	.50262	.94633	.49673	.53118	.48821	-.05609	4.9478	.50996	.48766	.48658	.49432	2.3240
#2	.50498	.50532	.94155	.49649	.53168	.48853	-.05713	4.9337	.51038	.48872	.48639	.49456	2.3240

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	48.091	1.0441	19.947	.49878	.48876	5.3236	.48999	.96016	1.0145	.02920	.98736	.95473	4.8548
Stddev	.056	.0035	.004	.00030	.00062	.0108	.00027	.00468	.0013	.00193	.00167	.00361	.0085
%RSD	.11708	.33227	.02214	.06074	.12648	.20246	.05594	.48724	.12860	6.6169	.16897	.37848	.17517

#1	48.051	1.0416	19.944	.49900	.48833	5.3159	.48979	.95686	1.0135	.03057	.98618	.95217	4.8488
#2	48.131	1.0465	19.951	.49857	.48920	5.3312	.49018	.96347	1.0154	.02784	.98854	.95728	4.8608

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass								
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.97339	.49908	.01871	.50763	1.0094	.03853	.48475	.50033	.48245
Stddev	.00332	.00115	.00059	.00072	.0021	.01379	.00032	.00173	.00153
%RSD	.34108	.23073	3.1774	.14238	.20538	35.788	.06633	.34667	.31673

#1	.97105	.49827	.01829	.50712	1.0109	.02878	.48497	.50156	.48137
#2	.97574	.49990	.01913	.50814	1.0080	.04828	.48452	.49911	.48353

Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6115.3	83818.	5032.7
Stddev	.2	16.	26.8
%RSD	.00366	.01938	.53236

#1	6115.1	83830.	5051.7
#2	6115.4	83807.	5013.8

Sample Name: CCB Acquired: 6/16/2015 0:57:27 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0088	.00095	.00128	F .00450	W -.00076	.00007	.00075	.00485	.00020	-.00013	-.00001
Stddev	.00043	.00082	.00110	.00022	.00001	.00009	.00114	.00075	.00003	.00012	.00004
%RSD	48.513	86.950	85.951	4.9950	1.5649	127.81	151.41	15.401	12.951	88.561	402.66

#1	-.00118	.00036	.00205	.00466	-.00075	.00001	-.00005	.00538	.00021	-.00005	-.00004
#2	-.00058	.00153	.00050	.00434	-.00077	.00013	.00156	.00432	.00018	-.00022	.00002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Warn	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.00312	.00058						
Low Limit				-.00312	-.00058						

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00102	-.00898	-.09031	W .00388	.00124	.00001	.00090	.04814	.00003	.00280	-.00155
Stddev	.00022	.00302	.01860	.00035	.00020	.00006	.00021	.01109	.00020	.00205	.00026
%RSD	21.662	33.689	20.596	9.1209	16.153	816.47	23.796	23.029	660.07	72.965	16.711

#1	.00117	-.01112	-.07716	.00363	.00110	.00005	.00075	.05598	-.00011	.00136	-.00173
#2	.00086	-.00684	-.10347	.00414	.00138	-.00003	.00105	.04030	.00017	.00425	-.00137
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.00261							
Low Limit				-.00261							

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01549	-.00000	.00359	.01590	-.00032	.00010	.00219	.00016	-.00072	-.00537	-.00056
Stddev	.00412	.00116	.00176	.00539	.00056	.00002	.00007	.00020	.00082	.01100	.00021
%RSD	26.583	222360.	49.018	33.916	176.39	16.479	3.0525	119.37	113.90	204.99	37.380

#1	.01840	.00082	.00484	.01209	.00008	.00012	.00214	.00030	-.00014	-.01314	-.00071
#2	.01257	-.00082	.00235	.01972	-.00072	.00009	.00224	.00003	-.00130	.00241	-.00041
Check ?	None	Chk Pass									
High Limit											
Low Limit											

Elem	Zn2062	Zr3391
Units	ppm	ppm
Avg	-.00326	.00041
Stddev	.00027	.00006
%RSD	8.3114	14.741
#1	-.00307	.00045
#2	-.00345	.00037

Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6217.2	87083.	5147.3
Stddev	5.8	102.	.1
%RSD	.09310	.11700	.00174
#1	6213.1	87010.	5147.4
#2	6221.3	87155.	5147.3

Sample Name: CCVL3329632 Acquired: 6/16/2015 1:00:07 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00999	.10895	.01550	.10707	.01054	.00105	W .12203	.21751	.00569	.01039	.01039	.01729
Stddev	.00001	.00065	.00112	.00106	.00007	.00014	.00212	.00478	.00013	.00033	.00003	.00004
%RSD	.12697	.59752	7.2022	.99180	.64154	13.707	1.7407	2.1990	2.2118	3.2018	.27615	.25800

#1	.00998	.10941	.01471	.10632	.01059	.00115	.12053	.22089	.00578	.01016	.01041	.01732
#2	.01000	.10849	.01629	.10783	.01049	.00095	.12353	.21413	.00560	.01063	.01037	.01726

Check ?	Chk Pass	Chk Warn	Chk Pass									
Value							.10000					
Range							20.000%					

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09169	3.0172	F .01694	.22716	.01075	.02027	1.1891	.04218	2.9837	.00859	.01252	.00831
Stddev	.00151	.0388	.00019	.00040	.00006	.00006	.0048	.00002	.0081	.00069	.00226	.00110
%RSD	1.6487	1.2860	1.1271	.17589	.59503	.29957	.40408	.03946	.27011	8.0086	18.019	13.219

#1	.09062	3.0446	.01681	.22744	.01071	.02032	1.1925	.04219	2.9780	.00907	.01093	.00754
#2	.09276	2.9898	.01708	.22688	.01080	.02023	1.1857	.04217	2.9894	.00810	.01412	.00909

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass						
Value			.01000									
Range			30.000%									

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01398	.50424	.10503	.01043	.01448	.01061	W .01804	W .07250	.00902	.02051	W .01901
Stddev	.00230	.01454	.00013	.00001	.00152	.00026	.00064	.01020	.00060	.00010	.00118
%RSD	16.417	2.8828	.12364	.05286	10.463	2.4905	3.5380	14.074	6.6109	.46450	6.2025

#1	.01561	.49396	.10512	.01043	.01341	.01080	.01849	.07972	.00944	.02058	.01817
#2	.01236	.51452	.10493	.01043	.01555	.01042	.01759	.06529	.00860	.02044	.01984

Check ?	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Warn					
Value							.01500	.06000			.01500
Range							20.000%	20.000%			20.000%

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6276.0	87569.	5165.8
Stddev	6.3	148.	21.0
%RSD	.10107	.16929	.40702

#1	6280.5	87464.	5180.6
#2	6271.5	87674.	5150.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W -0.0109	.01217	.00271	W .00316	-0.00057	.00001	.00206	W .04538	.00011
Stddev	.00012	.00092	.00067	.00007	.00024	.00003	.00024	.00376	.00010
%RSD	11.246	7.5572	24.599	2.2868	41.970	317.15	11.875	8.2898	84.483

#1	-0.0117	.01282	.00224	.00321	-0.00040	.00003	.00223	.04272	.00005
#2	-0.0100	.01152	.00318	.00310	-0.00074	-0.00001	.00189	.04804	.00018

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit	.00093			.00156				.03450	
Low Limit	-0.00093			-0.00156				-0.03450	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00013	.00058	W .00178	F .05710	-1.14847	W .00410	.00691	W .00037	.00038
Stddev	.00007	.00020	.00050	.00096	.01435	.00053	.00028	.00001	.00015
%RSD	55.631	33.696	28.094	1.6830	9.6676	12.864	4.0931	3.2273	39.449

#1	-0.0018	.00045	.00142	.05642	-1.13832	.00373	.00711	.00038	.00028
#2	-0.00008	.00072	.00213	.05778	-1.15862	.00448	.00671	.00036	.00049

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Fail	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass
High Limit			.00136	.04840		.00261		.00025	
Low Limit			-0.00136	-0.04840		-0.00261		-0.00025	

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04805	.00054	.00180	-0.00122	.10083	-0.00219	-0.00195	.01999	.00019
Stddev	.00269	.00038	.00360	.00057	.00889	.00085	.00260	.00490	.00060
%RSD	5.6063	70.970	200.58	46.517	8.8155	38.858	133.72	24.509	314.17

#1	.04995	.00027	-0.00075	-0.00082	.09454	-0.00159	-0.00011	.01653	.00061
#2	.04614	.00081	.00435	-0.00162	.10711	-0.00279	-0.00379	.02345	-0.00023

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00010	-0.00039	W .00067	-0.00066	.01498	-0.00035	-0.00052	.00188
Stddev	.00001	.00054	.00014	.00009	.00455	.00031	.00014	.00256
%RSD	13.927	139.04	20.521	13.661	30.393	88.299	26.438	136.40

#1	.00011	-0.00076	.00057	-0.00060	.01176	-0.00013	-0.00062	.00369
#2	.00009	-0.00001	.00077	-0.00073	.01819	-0.00057	-0.00042	.00007

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit			.00060					
Low Limit			-0.00060					

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6219.0	87922.	5202.1
Stddev	5.0	74.	.2
%RSD	.08090	.08422	.00383

#1	6222.6	87974.	5202.0
#2	6215.5	87870.	5202.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05223	1.9905	.98202	1.0399	2.2059	.05132	2.0549	50.927	.10578
Stddev	.00012	.0018	.00265	.0011	.0003	.00003	.0001	.009	.00024
%RSD	.22179	.08816	.26977	.10656	.01411	.05731	.00642	.01675	.22220

#1	.05215	1.9918	.98389	1.0391	2.2062	.05130	2.0550	50.921	.10561
#2	.05232	1.9893	.98014	1.0407	2.2057	.05134	2.0548	50.934	.10595

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49678	.20176	.26116	.97815	50.253	1.0817	51.253	.51586	1.0584
Stddev	.00031	.00038	.00043	.00183	.029	.0044	.007	.00009	.0009
%RSD	.06323	.18695	.16405	.18660	.05784	.40439	.01314	.01655	.08140

#1	.49700	.20203	.26147	.97686	50.273	1.0786	51.249	.51580	1.0578
#2	.49656	.20150	.26086	.97944	50.232	1.0848	51.258	.51592	1.0590

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	55.252	.49525	10.293	.51221	2.0743	.50951	2.0085	10.144	2.0167
Stddev	.429	.00009	.010	.00336	.0091	.00086	.0071	.022	.0026
%RSD	.77563	.01875	.09497	.65605	.43948	.16909	.35537	.21904	.12738

#1	54.949	.49519	10.286	.50983	2.0807	.50890	2.0136	10.160	2.0185
#2	55.555	.49532	10.300	.51458	2.0678	.51012	2.0035	10.128	2.0149

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0341	.99480	1.0592	2.0222	2.0286	.50922	.51618	.54014
Stddev	.0002	.00123	.0005	.0053	.0098	.00213	.00142	.00167
%RSD	.01694	.12334	.04734	.25990	.48265	.41922	.27527	.30884

#1	1.0340	.99393	1.0588	2.0259	2.0217	.51073	.51518	.54132
#2	1.0342	.99567	1.0595	2.0185	2.0356	.50771	.51719	.53896

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	5947.9	82562.	5095.8
Stddev	.3	119.	2.4
%RSD	.00539	.14377	.04709

#1	5947.6	82478.	5097.5
#2	5948.1	82646.	5094.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0105	.01370	.00289	.04660	.00728	.00006	.00013	3.1445	.00015
Stddev	.00018	.00040	.00091	.00067	.00049	.00006	.00003	.0093	.00007
%RSD	16.959	2.8841	31.344	1.4448	6.6913	101.17	24.046	.29558	46.504

#1	-0.0118	.01398	.00353	.04707	.00694	.00002	.00015	3.1379	.00010
#2	-0.0093	.01342	.00225	.04612	.00763	.00010	.00011	3.1511	.00020

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0036	.00013	.00128	.02441	1.2734	.00502	.97624	.00776	.00222
Stddev	.00029	.00014	.00054	.00139	.0131	.00118	.00005	.00007	.00012
%RSD	80.278	105.29	41.891	5.6882	1.0309	23.506	.00464	.96255	5.6133

#1	-0.0056	.00023	.00090	.02343	1.2641	.00586	.97627	.00782	.00231
#2	-0.0015	.00003	.00166	.02539	1.2826	.00419	.97620	.00771	.00213

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.6274	.00076	.00374	-0.0077	1.1339	-0.00301	.00470	1.1202	-0.0014
Stddev	.0086	.00028	.00156	.00035	.0018	.00042	.00174	.0059	.00056
%RSD	.23785	37.371	41.766	45.800	.15973	14.129	37.124	.52963	388.04

#1	3.6213	.00056	.00485	-0.0052	1.1352	-0.00271	.00347	1.1160	.00025
#2	3.6335	.00096	.00264	-0.0103	1.1327	-0.00331	.00593	1.1244	-0.0054

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01606	.00102	.00008	-0.00088	-0.00915	-0.00089	.00106	.00340
Stddev	.00010	.00284	.00004	.00048	.03738	.00092	.00007	.00117
%RSD	.64783	279.41	50.724	54.602	408.68	103.03	6.5084	34.362

#1	.01598	-0.0099	.00005	-0.0123	.01729	-0.00024	.00111	.00257
#2	.01613	.00302	.00010	-0.0054	-0.03558	-0.00155	.00101	.00422

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6177.2	86428.	5116.7
Stddev	3.2	68.	3.1
%RSD	.05140	.07855	.06000

#1	6175.0	86476.	5114.5
#2	6179.5	86380.	5118.9

Sample Name: 280-69925-H-4-DSD@10 Acquired: 6/16/2015 1:10:30 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 281097 200.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0009	-0.0018	-0.0073	.01122	.00087	.00004	-0.00039	.62768	.00011
Stddev	.00051	.00065	.00017	.00013	.00051	.00010	.00119	.00414	.00026
%RSD	564.14	352.85	23.919	1.1420	58.960	265.64	303.16	.65889	229.66
#1	.00027	.00027	-.00085	.01113	.00123	-.00003	-.00123	.63061	.00030
#2	-.00045	-.00064	-.00061	.01131	.00050	.00010	.00045	.62476	-.00007

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0028	-0.0007	.00093	.00015	.23794	.00403	.19738	.00152	.00053
Stddev	.00007	.00016	.00005	.00065	.03721	.00021	.00313	.00009	.00020
%RSD	24.491	214.54	5.5980	437.96	15.639	5.2325	1.5841	5.8202	38.115
#1	-.00023	.00004	.00096	.00061	.26425	.00388	.19517	.00158	.00039
#2	-.00033	-.00019	.00089	-.00031	.21162	.00418	.19959	.00145	.00067

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.71253	.00011	.00065	-.00098	.22750	-.00256	-.00459	.21667	-.00062
Stddev	.00276	.00008	.00003	.00021	.00194	.00051	.00489	.00519	.00014
%RSD	.38671	74.906	4.8949	21.269	.85230	19.747	106.42	2.3962	23.096
#1	.71448	.00005	.00068	-.00083	.22887	-.00292	-.00114	.21300	-.00072
#2	.71058	.00017	.00063	-.00112	.22613	-.00220	-.00805	.22034	-.00052

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00313	.00043	.00016	-.00056	-.02618	-.00093	-.00198	.00318
Stddev	.00005	.00046	.00022	.00068	.02199	.00025	.00049	.00263
%RSD	1.6264	106.11	138.00	121.38	83.990	26.573	24.509	82.605
#1	.00309	.00075	.00000	-.00008	-.04173	-.00110	-.00233	.00504
#2	.00316	.00011	.00032	-.00104	-.01063	-.00075	-.00164	.00132

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6177.5	86628.	5077.2
Stddev	5.0	193.	21.9
%RSD	.08116	.22232	.43123
#1	6173.9	86492.	5061.7
#2	6181.0	86765.	5092.7

Sample Name: 280-69925-H-4-E MS@2 Acquired: 6/16/2015 1:13:10 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281097 200.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02532	1.0312	.48938	.56360	1.1104	.02558	1.0436	28.504	.05276
Stddev	.00009	.0013	.00052	.00067	.0047	.00020	.0003	.089	.00008
%RSD	.34912	.12889	.10707	.11955	.42626	.79612	.03275	.31196	.15256
#1	.02526	1.0303	.48975	.56408	1.1138	.02572	1.0434	28.567	.05271
#2	.02538	1.0321	.48901	.56313	1.1071	.02543	1.0438	28.441	.05282

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.25147	.10124	.13229	.48311	26.387	.54380	26.612	.26728	.53326
Stddev	.00077	.00021	.00037	.00008	.090	.00330	.000	.00008	.00083
%RSD	.30780	.20424	.27806	.01604	.34023	.60627	.00023	.02816	.15612
#1	.25202	.10138	.13203	.48316	26.451	.54613	26.612	.26723	.53385
#2	.25092	.10109	.13255	.48305	26.324	.54147	26.612	.26734	.53267

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	31.609	.25167	5.0987	.25857	2.1390	.25493	.99523	6.1631	1.0218
Stddev	.141	.00036	.0085	.00045	.0073	.00022	.00326	.0135	.0019
%RSD	.44459	.14315	.16700	.17318	.34073	.08620	.32774	.21885	.18237
#1	31.509	.25192	5.1047	.25825	2.1338	.25478	.99292	6.1726	1.0231
#2	31.708	.25141	5.0926	.25888	2.1441	.25509	.99754	6.1535	1.0205

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.53435	.49464	.53077	1.0422	.98929	.25479	.25974	.27163
Stddev	.00207	.00034	.00001	.0011	.00001	.00015	.00131	.00593
%RSD	.38821	.06792	.00208	.10724	.00140	.05882	.50535	2.1832
#1	.53582	.49488	.53078	1.0430	.98930	.25490	.25881	.27582
#2	.53289	.49440	.53076	1.0414	.98928	.25468	.26067	.26744

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5992.1	83186.	5061.8
Stddev	2.9	240.	12.4
%RSD	.04831	.28846	.24492
#1	5990.1	83356.	5053.0
#2	5994.2	83016.	5070.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02512	1.0119	.48048	.55229	1.0954	.02540	1.0302	28.121	.05176
Stddev	.00060	.0014	.00005	.00025	.0038	.00013	.0015	.042	.00017
%RSD	2.3918	.13747	.01100	.04515	.34762	.51549	.14677	.14798	.33583

#1	.02555	1.0110	.48051	.55212	1.0981	.02550	1.0291	28.150	.05189
#2	.02470	1.0129	.48044	.55247	1.0927	.02531	1.0312	28.091	.05164

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.24781	.09989	.13046	.48233	26.209	.53736	26.232	.26310	.52376
Stddev	.00034	.00008	.00005	.00496	.199	.00124	.043	.00012	.00034
%RSD	.13601	.07756	.03460	1.0287	.75936	.23119	.16518	.04738	.06544

#1	.24805	.09984	.13043	.48584	26.350	.53824	26.263	.26301	.52351
#2	.24757	.09995	.13049	.47882	26.069	.53648	26.202	.26318	.52400

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	31.017	.24774	5.0113	.25554	2.0844	.25095	.98122	6.0775	1.0010
Stddev	.072	.00002	.0123	.00200	.0063	.00192	.00035	.0158	.0004
%RSD	.23168	.00844	.24440	.78071	.30238	.76475	.03597	.25986	.03514

#1	31.068	.24776	5.0199	.25695	2.0888	.24959	.98147	6.0887	1.0012
#2	30.966	.24773	5.0026	.25413	2.0799	.25231	.98097	6.0663	1.0007

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52806	.48960	.52036	1.0249	1.0057	.25054	.25472	.26677
Stddev	.00122	.00044	.00015	.0010	.0051	.00032	.00132	.00056
%RSD	.23068	.09027	.02943	.09768	.50515	.12714	.52009	.20985

#1	.52892	.48991	.52025	1.0242	1.0021	.25077	.25378	.26637
#2	.52719	.48929	.52047	1.0256	1.0093	.25032	.25565	.26716

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5988.8	83370.	5043.5
Stddev	1.5	62.	35.4
%RSD	.02556	.07389	.70094

#1	5987.7	83414.	5018.5
#2	5989.9	83327.	5068.5

Sample Name: 280-69925-H-4-DPDS@2 Acquired: 6/16/2015 1:18:05 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 281097 200.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04915	1.0195	.19416	.14584	.11450	.04939	-.00525	22.613	.05146
Stddev	.00000	.0005	.00075	.00018	.00012	.00024	.00335	.061	.00003
%RSD	.00659	.04859	.38422	.12603	.10577	.48214	63.717	.27171	.05305
#1	.04914	1.0192	.19468	.14571	.11442	.04922	-.00762	22.657	.05148
#2	.04915	1.0199	.19363	.14597	.11459	.04956	-.00289	22.570	.05144

Check ?
 High Limit
 Low Limit

Chk Pass Chk Pass

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04814	.04910	.05235	.95078	20.783	.11096	20.828	.05774	.05130
Stddev	.00012	.00019	.00022	.00010	.087	.00103	.020	.00013	.00013
%RSD	.24478	.38348	.41869	.01048	.42087	.92462	.09835	.22861	.25051
#1	.04806	.04897	.05219	.95085	20.721	.11169	20.842	.05784	.05139
#2	.04822	.04923	.05250	.95071	20.844	.11024	20.813	.05765	.05121

Check ?
 High Limit
 Low Limit

Chk Pass Chk Pass

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.167	.04920	1.9621	.10108	1.1069	.10013	.19082	5.9752	.09993
Stddev	.238	.00002	.0045	.00095	.0004	.00052	.00163	.0001	.00038
%RSD	.94553	.03129	.22837	.94229	.03342	.51816	.85387	.00230	.38340
#1	25.335	.04921	1.9590	.10176	1.1066	.09976	.18967	5.9753	.09966
#2	24.999	.04919	1.9653	.10041	1.1071	.10050	.19197	5.9751	.10020

Check ?
 High Limit
 Low Limit

Chk Pass Chk Pass

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06633	.19033	.05214	.20448	.51665	.04920	.21067	.05672
Stddev	.00014	.00124	.00008	.00092	.01506	.00043	.00055	.00057
%RSD	.21318	.65070	.15391	.44793	2.9152	.87191	.26039	1.0039
#1	.06643	.18945	.05208	.20383	.50600	.04951	.21106	.05632
#2	.06623	.19120	.05219	.20512	.52730	.04890	.21029	.05713

Check ?
 High Limit
 Low Limit

Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	6015.5	83630.	5072.4
Stddev	6.4	205.	10.6
%RSD	.10584	.24493	.20948
#1	6011.0	83485.	5064.9
#2	6020.0	83775.	5079.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0048	.01267	-0.00192	.01693	.01190	.00001	-0.00019	5.3463	.00016
Stddev	.00012	.00018	.00444	.00032	.00038	.00000	.00034	.0043	.00012
%RSD	26.088	1.4307	230.78	1.8659	3.1670	1.6102	183.00	.08032	76.451

#1	-0.00039	.01279	.00121	.01715	.01217	.00001	.00005	5.3493	.00024
#2	-0.00056	.01254	-.00506	.01670	.01164	.00001	-.00043	5.3432	.00007

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00007	.00023	.00161	.03689	1.1482	.00608	2.4640	.00055	.00081
Stddev	.00012	.00007	.00017	.00134	.0049	.00123	.0017	.00000	.00010
%RSD	169.10	32.004	10.762	3.6309	.42699	20.297	.06904	.35259	11.832

#1	.00001	.00028	.00149	.03594	1.1517	.00695	2.4628	.00055	.00088
#2	-.00016	.00018	.00173	.03783	1.1448	.00521	2.4652	.00055	.00075

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.7325	.00049	.01350	-0.00015	3.2819	-0.00437	-0.00384	.94704	-0.00068
Stddev	.0070	.00001	.00234	.00124	.0080	.00121	.00175	.03390	.00009
%RSD	.40439	2.6434	17.305	815.63	.24222	27.685	45.535	3.5801	13.435

#1	1.7374	.00050	.01515	-.00103	3.2875	-.00351	-.00260	.97101	-.00075
#2	1.7275	.00048	.01184	.00072	3.2763	-.00522	-.00507	.92306	-.00062

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01995	.00215	.00047	.00004	-.03083	-.00088	-.00214	.00141
Stddev	.00000	.00006	.00005	.00031	.00540	.00004	.00036	.00114
%RSD	.01356	2.6902	11.353	701.13	17.531	4.8122	16.899	81.143

#1	.01995	.00211	.00043	-.00018	-.02701	-.00085	-.00240	.00060
#2	.01995	.00219	.00050	.00026	-.03465	-.00091	-.00189	.00221

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6122.3	85961.	5107.6
Stddev	2.0	144.	30.6
%RSD	.03238	.16766	.59945

#1	6120.9	86063.	5086.0
#2	6123.7	85859.	5129.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0118	.01056	.00290	5.5643	.02427	.00010	.00062	173.42	.00015
Stddev	.00017	.00099	.00023	.0001	.00027	.00003	.00082	.02	.00005
%RSD	14.653	9.3780	8.0439	.00210	1.1085	28.738	130.83	.00931	29.960

#1	-0.0130	.00986	.00273	5.5644	.02408	.00012	.00005	173.43	.00012
#2	-0.0106	.01126	.00306	5.5643	.02446	.00008	.00120	173.41	.00019

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0019	.00033	.00185	-0.0147	1.4422	.01260	36.575	.00020	.00390
Stddev	.00047	.00006	.00004	.00150	.0469	.00090	.024	.00004	.00005
%RSD	242.31	17.075	2.0546	102.09	3.2554	7.1383	.06576	20.287	1.1689

#1	.00014	.00029	.00182	-0.0041	1.4090	.01324	36.592	.00023	.00387
#2	-0.0053	.00037	.00188	-0.0253	1.4754	.01197	36.558	.00017	.00393

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9709	.00178	.00354	-0.0130	127.53	-0.00107	.00220	1.2368	-0.0110
Stddev	.0040	.00016	.00199	.00014	.01	.00204	.00312	.0184	.00065
%RSD	.20561	8.7918	56.170	10.455	.00551	190.75	142.06	1.4854	59.080

#1	1.9737	.00189	.00495	-0.0140	127.52	.00037	-0.00001	1.2238	-0.0156
#2	1.9680	.00167	.00214	-0.0121	127.53	-0.00252	.00440	1.2498	-0.0064

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.21970	.00045	.00024	.00126	-0.01667	-0.00031	-0.00109	-0.00088
Stddev	.00006	.00034	.00045	.00027	.01931	.00036	.00004	.00113
%RSD	.02956	76.238	184.72	21.253	115.84	117.22	3.3809	127.97

#1	.21965	.00069	.00056	.00146	-.00302	-0.00005	-0.00106	-0.00168
#2	.21974	.00021	-0.00007	.00107	-0.03032	-0.00056	-0.00111	-0.00008

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5849.0	82308.	5009.6
Stddev	12.9	8.	7.2
%RSD	.22101	.00996	.14393

#1	5858.1	82302.	5004.5
#2	5839.9	82314.	5014.7

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0011	50.221	-0.00087	.01443	-0.00023	.00014	1.0066	.01746	-0.00115	.00095	.00037	.01872	49.620
Stddev	.00033	.240	.00463	.00085	.00002	.00010	.0035	.00668	.00021	.00034	.00007	.00007	.056
%RSD	291.86	.47872	530.42	5.9123	10.696	73.202	.34831	38.225	18.540	35.797	18.041	.38512	.11300

#1	-0.00034	50.391	-0.00415	.01504	-0.00025	.00007	1.0090	.02218	-0.00100	.00071	.00032	.01867	49.580
#2	.00012	50.051	.00240	.01383	-0.00021	.00022	1.0041	.01274	-0.00130	.00119	.00041	.01877	49.659

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.04059	.00605	-0.00264	.00163	-0.00204	262.34	.00191	.00722	-0.00261	5.0124	.01207	-0.00024	.01451
Stddev	.01062	.00120	.00338	.00005	.00024	1.18	.00030	.00311	.00012	.0052	.00165	.00370	.00946
%RSD	26.156	19.777	127.90	3.0978	11.704	.45059	15.589	43.065	4.6004	.10366	13.639	1575.3	65.173

#1	-0.04810	.00521	-0.00025	.00167	-0.00187	263.17	.00212	.00502	-0.00269	5.0161	.01324	-0.00285	.02120
#2	-.03308	.00690	-.00503	.00160	-0.00221	261.50	.00170	.00942	-0.00252	5.0087	.01091	.00238	.00782

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00028	.00048	4.8682	.00088	.00042	9.8974	.00218	-0.00029	.20973
Stddev	.00032	.00006	.0085	.00028	.00071	.0215	.00014	.00056	.00022
%RSD	112.25	11.406	.17552	31.693	168.97	.21687	6.4772	193.46	.10369

#1	.00006	.00044	4.8742	.00068	.00092	9.8822	.00228	.00011	.20957
#2	.00051	.00052	4.8621	.00107	-0.00008	9.9126	.00208	-0.00069	.20988

Check ?	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5893.2	81208.	5005.4
Stddev	.3	338.	.4
%RSD	.00549	.41658	.00714

#1	5893.0	81447.	5005.2
#2	5893.5	80969.	5005.7

Sample Name: ccv-3323216 Acquired: 6/16/2015 1:28:25 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50974	.51513	.95524	.50021	.53583	.49019	-.05658	4.9829	.51082	.49556	.49253	.49937	2.3629
Stddev	.00036	.00045	.00103	.00165	.00023	.00011	.00184	.0003	.00046	.00037	.00140	.00108	.0040
%RSD	.07040	.08776	.10789	.33085	.04266	.02157	3.2535	.00514	.09048	.07494	.28470	.21602	.16988

#1	.50999	.51545	.95597	.50138	.53567	.49011	-.05528	4.9827	.51115	.49582	.49352	.49861	2.3657
#2	.50949	.51481	.95451	.49904	.53599	.49026	-.05788	4.9831	.51050	.49530	.49154	.50013	2.3601

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	48.546	1.0530	19.996	.50194	.49341	5.3764	.49546	.97099	1.0188	.00376	.99475	.96151	4.8733
Stddev	.070	.0008	.006	.00030	.00096	.0064	.00084	.00553	.0006	.00411	.00062	.00407	.0276
%RSD	.14389	.07077	.03072	.05941	.19357	.11983	.17044	.56936	.06106	109.44	.06255	.42369	.56687

#1	48.595	1.0535	19.991	.50173	.49409	5.3718	.49606	.96709	1.0192	.00085	.99431	.96439	4.8537
#2	48.496	1.0525	20.000	.50216	.49274	5.3809	.49487	.97490	1.0184	.00666	.99519	.95863	4.8928

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass								
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.98266	.50389	.02085	.51109	1.0148	-.01210	.48888	.50506	.48726
Stddev	.00342	.00003	.00117	.00039	.0014	.00110	.00023	.00116	.00256
%RSD	.34762	.00626	5.6143	.07649	.14093	9.0559	.04640	.22955	.52608

#1	.98507	.50391	.02002	.51137	1.0158	-.01132	.48872	.50588	.48545
#2	.98024	.50387	.02168	.51082	1.0138	-.01287	.48904	.50424	.48908

Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6023.0	83776.	5034.0
Stddev	7.7	204.	10.6
%RSD	.12780	.24334	.21056

#1	6017.5	83632.	5041.5
#2	6028.4	83921.	5026.5

Sample Name: CCB Acquired: 6/16/2015 1:30:53 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0081	.00083	.00431	F .00563	-0.0047	.00006	.00075	.01039	.00029	-0.0053	.00016	.00049
Stddev	.00000	.00026	.00087	.00042	.00055	.00020	.00294	.00494	.00013	.00018	.00023	.00052
%RSD	.09498	31.248	20.263	7.4149	116.40	313.80	394.78	47.551	43.166	33.802	143.47	105.73

#1	-0.0081	.00102	.00493	.00533	-0.0087	.00020	-0.0134	.00690	.00020	-0.0041	.00032	.00086
#2	-0.0081	.00065	.00369	.00592	-0.0008	-0.0008	.00283	.01388	.00038	-0.0066	-0.0000	.00012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.00312								
Low Limit				-.00312								

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0156	-0.05681	W .00425	.00127	-0.0004	.00112	.03549	.00052	-0.00034	-0.00041	-0.00014	-0.0167
Stddev	.00057	.01958	.00118	.00176	.00004	.00033	.00785	.00017	.00126	.00054	.00334	.00242
%RSD	36.535	34.466	27.709	138.34	101.41	29.723	22.129	32.597	373.15	132.14	2319.4	144.83

#1	-0.0116	-.07066	.00342	.00252	-0.0007	.00088	.04105	.00064	-0.0123	-0.0080	-0.0250	.00004
#2	-0.0196	-.04296	.00508	.00003	-0.0001	.00136	.02994	.00040	.00055	-0.0003	.00222	-.00338

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	None	Chk Pass						
High Limit			.00261									
Low Limit			-.00261									

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00036	-0.00240	-0.00119	.00007	.00027	.00047	-0.00068	-0.01557	-0.00061	-0.00322	.00120
Stddev	.00120	.00729	.00071	.00004	.00241	.00009	.00084	.02482	.00048	.00016	.00064
%RSD	333.74	303.42	60.081	64.386	884.38	19.028	124.36	159.47	78.694	5.0907	53.146

#1	-0.0120	.00275	-0.0068	.00010	.00197	.00053	-0.0008	.00199	-0.0027	-0.00334	.00165
#2	.00049	-.00755	-0.00169	.00004	-0.00143	.00040	-0.00127	-.03312	-0.00096	-0.00311	.00075

Check ?	Chk Pass										
High Limit											
Low Limit											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6114.1	85424.	5018.0
Stddev	21.3	198.	.4
%RSD	.34911	.23230	.00764

#1	6099.1	85565.	5017.8
#2	6129.2	85284.	5018.3

Sample Name: CCVL3329632 Acquired: 6/16/2015 1:33:33 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01022	.10984	.01361	.10760	.01051	.00104	W .12301	.21928	.00545	.01044	.01035	.01663
Stddev	.00086	.00103	.00021	.00062	.00025	.00006	.00129	.00349	.00028	.00005	.00004	.00009
%RSD	8.4420	.93359	1.5660	.57232	2.3885	5.6964	1.0459	1.5902	5.1975	.48596	.41383	.54231

#1	.00961	.10911	.01346	.10803	.01033	.00099	.12392	.22174	.00565	.01047	.01032	.01670
#2	.01083	.11056	.01376	.10716	.01068	.00108	.12210	.21681	.00525	.01040	.01038	.01657

Check ?	Chk Pass	Chk Warn	Chk Pass									
Value							.10000					
Range							20.000%					

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09351	3.0167	F .01607	.22858	.01082	.02042	1.1431	.04295	2.9883	.00927	-.00133	F .00619
Stddev	.00192	.1183	.00122	.00088	.00002	.00012	.0144	.00003	.0036	.00014	.00039	.00160
%RSD	2.0508	3.9228	7.5658	.38671	.19526	.57713	1.2584	.06123	.11866	1.4985	29.257	25.874

#1	.09487	3.1004	.01521	.22795	.01080	.02034	1.1329	.04296	2.9908	.00918	-.00105	.00506
#2	.09216	2.9330	.01693	.22920	.01083	.02051	1.1533	.04293	2.9858	.00937	-.00160	.00733

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Fail						
Value			.01000									.01000
Range			30.000%									-30.000%

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01506	.50853	.10454	.01068	.01595	.01060	.01738	.06052	.00933	.02031	.01513
Stddev	.00021	.00211	.00012	.00006	.00078	.00031	.00026	.03859	.00047	.00010	.00057
%RSD	1.3832	.41549	.11102	.59735	4.8964	2.8849	1.4775	63.769	5.0074	.50906	3.7709

#1	.01521	.51002	.10446	.01063	.01651	.01082	.01720	.08781	.00900	.02038	.01473
#2	.01492	.50703	.10462	.01072	.01540	.01039	.01756	.03323	.00966	.02024	.01554

Check ?	Chk Pass										
Value											
Range											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6204.0	86393.	5046.4
Stddev	11.5	149.	11.9
%RSD	.18466	.17197	.23633

#1	6212.1	86498.	5038.0
#2	6195.9	86288.	5054.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0121	.00600	-0.00131	.01727	.01883	.00002	.00230	9.0466	.00037
Stddev	.00002	.00033	.00346	.00066	.00010	.00004	.00269	.0194	.00016
%RSD	1.5481	5.5688	263.75	3.8112	.50686	269.12	116.95	.21463	44.241

#1	-0.0119	.00624	-0.00376	.01773	.01890	-0.00001	.00420	9.0328	.00026
#2	-0.0122	.00577	.00113	.01680	.01877	.00005	.00040	9.0603	.00049

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0010	.00016	.00099	.00581	.58731	.00456	2.5928	.00020	.00050
Stddev	.00006	.00005	.00068	.00045	.09746	.00026	.0030	.00002	.00005
%RSD	57.586	31.091	68.950	7.6775	16.594	5.7188	.11442	8.1388	10.607

#1	-0.0014	.00020	.00051	.00549	.65622	.00475	2.5949	.00021	.00054
#2	-0.0006	.00013	.00147	.00612	.51840	.00438	2.5907	.00019	.00047

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0012	.00044	.00917	-0.0038	1.0132	-0.00234	.00014	1.0669	-0.0065
Stddev	.0007	.00013	.00362	.00050	.0015	.00116	.00354	.0203	.00108
%RSD	.03351	28.441	39.438	131.88	.14576	49.468	2537.7	1.9068	167.46

#1	2.0007	.00035	.01172	-0.00073	1.0142	-0.00152	-0.00236	1.0812	.00012
#2	2.0017	.00053	.00661	-0.00003	1.0122	-0.00315	.00264	1.0525	-0.00141

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02383	.00224	-0.00007	-0.00035	-0.01496	-0.00055	-0.00166	.00064
Stddev	.00003	.00008	.00046	.00074	.01124	.00089	.00016	.00193
%RSD	.11846	3.7714	620.03	213.08	75.087	161.47	9.9044	301.92

#1	.02381	.00229	.00025	.00017	-.02291	-0.00118	-0.00178	.00201
#2	.02385	.00218	-0.00040	-0.00087	-0.00702	.00008	-0.00155	-0.00073

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6125.4	85419.	5061.7
Stddev	23.7	89.	11.7
%RSD	.38671	.10412	.23164

#1	6108.7	85356.	5053.4
#2	6142.2	85482.	5070.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0131	.00012	.01227	66.838	.10831	.00007	-0.00367	W 1642.9	-0.0185
Stddev	.00084	.00001	.00298	.076	.00066	.00000	.00183	5.3	.00001
%RSD	64.336	6.6094	24.249	.11366	.61375	.13724	49.948	.32251	.34566

#1	-0.00071	.00013	.01438	66.784	.10878	.00007	-.00238	1639.2	-.00185
#2	-0.00190	.00012	.01017	66.892	.10784	.00007	-.00497	1646.7	-.00186

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								500.00	
Low Limit								-.05000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00481	.00062	.00296	.00331	5.1585	.01412	193.06	1.3163	.06013
Stddev	.00003	.00004	.00006	.00003	.0544	.00023	.22	.0002	.00025
%RSD	.63297	6.5274	1.9515	.84260	1.0546	1.6208	.11217	.01798	.40930

#1	.00483	.00060	.00300	.00333	5.1970	.01429	193.21	1.3165	.05996
#2	.00479	.00065	.00292	.00329	5.1201	.01396	192.91	1.3161	.06030

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	52.873	.03793	.03704	W -.00329	F 228.86	.00036	.19714	5.4091	-.00170
Stddev	.101	.00001	.00004	.00007	.26	.00036	.00001	.0122	.00001
%RSD	.19038	.01416	.09466	1.9998	.11225	99.670	.00582	.22595	.80755

#1	52.802	.03793	.03707	-.00325	228.68	.00062	.19714	5.4005	-.00171
#2	52.944	.03794	.03702	-.00334	229.04	.00011	.19715	5.4178	-.00169

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				10.000	200.00				
Low Limit				-.00300	-.02000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.1672	.00470	.00084	.00095	W -.06789	.00181	.01364	-.00107
Stddev	.0032	.00120	.00065	.00030	.01804	.00048	.00010	.00168
%RSD	.07647	25.547	77.251	31.905	26.569	26.510	.74338	157.29

#1	4.1695	.00554	.00038	.00073	-.08064	.00147	.01357	-.00226
#2	4.1650	.00385	.00131	.00116	-.05513	.00215	.01371	.00012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit					45.000			
Low Limit					-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5133.9	71785.	4784.3
Stddev	9.0	32.	12.5
%RSD	.17628	.04411	.26097

#1	5140.3	71763.	4775.5
#2	5127.5	71808.	4793.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0030	.00753	.00028	.13099	.01133	.00004	.00075	12.141	.00017
Stddev	.00001	.00010	.00095	.01138	.00022	.00001	.00163	.045	.00023
%RSD	1.8522	1.3517	341.60	8.6887	1.9554	26.744	216.27	.36878	136.33

#1	-0.0031	.00745	.00095	.13904	.01118	.00004	.00191	12.109	.00001
#2	-0.0030	.00760	-.00039	.12294	.01149	.00003	-.00040	12.173	.00033

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0030	.00013	.00119	.01918	1.0879	.00270	4.1697	.00013	.00066
Stddev	.00001	.00009	.00011	.00142	.0420	.00034	.0126	.00000	.00013
%RSD	1.6892	66.180	8.9115	7.4067	3.8619	12.780	.30202	.22876	20.018

#1	-0.0030	.00019	.00126	.01818	1.0582	.00245	4.1786	.00013	.00075
#2	-0.0031	.00007	.00111	.02019	1.1176	.00294	4.1608	.00013	.00057

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.6585	.00073	.00363	-.00163	9.4701	-.00236	-.00046	.78672	-.00048
Stddev	.0039	.00042	.00045	.00037	.0219	.00133	.00214	.01253	.00009
%RSD	.14836	56.997	12.436	22.715	.23136	56.394	461.61	1.5928	19.149

#1	2.6558	.00102	.00395	-.00137	9.4856	-.00142	.00105	.77786	-.00042
#2	2.6613	.00044	.00331	-.00189	9.4546	-.00329	-.00198	.79558	-.00055

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03875	.00035	.00031	-.00044	.00339	-.00040	-.00028	.00183
Stddev	.00010	.00060	.00014	.00017	.02653	.00015	.00023	.00167
%RSD	.25580	173.44	44.810	38.939	783.55	36.472	81.084	91.343

#1	.03868	-.00008	.00040	-.00032	.02214	-.00030	-.00012	.00301
#2	.03882	.00077	.00021	-.00056	-.01537	-.00051	-.00045	.00065

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6119.3	85956.	5128.4
Stddev	8.5	12.	8.6
%RSD	.13815	.01379	.16780

#1	6113.3	85948.	5134.5
#2	6125.3	85964.	5122.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0089	.03656	-0.0204	.07143	.01381	.00009	-0.0124	7.9990	.00024
Stddev	.00029	.00024	.00061	.00305	.00019	.00012	.00001	.0153	.00020
%RSD	32.405	.66474	29.724	4.2707	1.3688	127.61	.83420	.19109	82.528

#1	-0.0069	.03639	-0.0247	.07358	.01395	.00001	-0.0123	8.0098	.00010
#2	-0.0110	.03673	-0.0161	.06927	.01368	.00018	-0.0124	7.9882	.00038

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0018	.00047	.02655	.13804	.82908	.00436	1.2858	.00716	.00024
Stddev	.00024	.00014	.00065	.00221	.05980	.00094	.0004	.00001	.00000
%RSD	134.82	30.622	2.4472	1.6002	7.2123	21.485	.03211	.15682	.93840

#1	-0.0001	.00057	.02609	.13960	.78679	.00503	1.2860	.00715	.00024
#2	-0.0034	.00037	.02701	.13648	.87136	.00370	1.2855	.00717	.00024

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.9955	.00094	.01101	.00179	2.0292	-0.0058	-0.00347	1.2500	-0.0044
Stddev	.0016	.00020	.00090	.00010	.0034	.00068	.00172	.0025	.00048
%RSD	.03904	20.984	8.1532	5.3456	.16625	116.70	49.626	.19838	109.95

#1	3.9966	.00108	.01038	.00172	2.0316	-0.0010	-0.00468	1.2517	-0.0077
#2	3.9944	.00080	.01165	.00185	2.0268	-0.0106	-0.00225	1.2482	-0.0010

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04287	.00175	.00153	-0.0011	-0.03226	-0.00073	.01727	.00351
Stddev	.00002	.00225	.00009	.00089	.03345	.00005	.00012	.00420
%RSD	.05130	128.65	5.7180	80.530	103.69	6.3328	.67313	119.86

#1	.04289	.00335	.00147	-0.0048	-.05592	-0.00070	.01719	.00053
#2	.04286	.00016	.00159	-0.0174	-0.00861	-0.00076	.01735	.00648

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6113.1	86135.	5102.7
Stddev	14.3	15.	16.6
%RSD	.23396	.01707	.32610

#1	6123.2	86146.	5091.0
#2	6103.0	86125.	5114.5

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0019	49.914	-0.00157	.04636	-0.00030	.00001	1.0096	.02029	-0.00136	.00119	.00019	.02056	49.077
Stddev	.00035	.199	.00131	.00181	.00027	.00005	.0017	.00291	.00034	.00012	.00015	.00018	.316
%RSD	178.97	.39826	83.620	3.8981	91.208	373.45	.17239	14.318	25.148	9.6568	78.434	.89106	.64382

#1	.00005	50.054	-.00064	.04764	-.00011	.00005	1.0084	.02234	-.00160	.00127	.00008	.02069	49.301
#2	-.00044	49.773	-.00250	.04508	-.00049	-.00002	1.0108	.01824	-.00112	.00111	.00029	.02043	48.854

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.02871	.00383	-0.00281	.00159	-0.00170	261.91	.00218	.00515	-0.00237	5.0133	.01236	.00444	-0.00488
Stddev	.05711	.00129	.00236	.00006	.00014	.19	.00061	.00100	.00023	.0249	.00186	.00256	.01296
%RSD	198.92	33.623	83.939	3.8594	8.0790	.07423	28.105	19.364	9.7747	.49693	15.060	57.776	265.65

#1	.01167	.00292	-.00114	.00155	-.00180	262.04	.00261	.00444	-.00254	4.9956	.01368	.00262	.00429
#2	-.06909	.00474	-.00448	.00163	-.00160	261.77	.00175	.00585	-.00221	5.0309	.01105	.00625	-.01404

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00027	.00049	4.8881	.00113	.00097	9.9214	.00181	.00093	.20877
Stddev	.00004	.00013	.0075	.00032	.00056	.0534	.00004	.00008	.00322
%RSD	16.259	26.292	.15272	27.978	58.023	.53843	2.2584	8.7106	1.5420

#1	.00024	.00058	4.8934	.00135	.00137	9.9592	.00184	.00099	.21105
#2	.00030	.00040	4.8829	.00091	.00057	9.8836	.00178	.00088	.20650

Check ?	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5886.1	81072.	5044.9
Stddev	10.9	171.	25.2
%RSD	.18552	.21067	.50009

#1	5878.4	80951.	5027.0
#2	5893.9	81193.	5062.7

Sample Name: ccv-3323216 Acquired: 6/16/2015 1:49:46 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51191	.54451	.95226	.52870	.53431	.49226	-.05394	5.0757	.51309	.49443	.49242	.50087	2.3905
Stddev	.00025	.00293	.00080	.00029	.00092	.00095	.00023	.0165	.00072	.00146	.00144	.00100	.0108
%RSD	.04900	.53724	.08409	.05469	.17167	.19289	.42978	.32614	.14026	.29623	.29232	.19982	.45230

#1	.51209	.54244	.95282	.52849	.53496	.49293	-.05378	5.0874	.51258	.49339	.49140	.50158	2.3981
#2	.51174	.54658	.95169	.52890	.53366	.49159	-.05411	5.0640	.51360	.49546	.49344	.50017	2.3828

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	48.638	1.0499	20.106	.50276	.49506	5.4884	.49591	.96688	1.0230	.01161	.99513	.95827	4.8131
Stddev	.182	.0011	.009	.00035	.00005	.0296	.00015	.00760	.0028	.00413	.00216	.00392	.0118
%RSD	.37441	.10714	.04536	.06980	.01045	.53980	.02926	.78611	.27196	35.562	.21696	.40946	.24409

#1	48.767	1.0507	20.113	.50251	.49510	5.5094	.49581	.96151	1.0211	.01452	.99666	.95550	4.8048
#2	48.509	1.0491	20.100	.50301	.49502	5.4675	.49601	.97226	1.0250	.00869	.99361	.96104	4.8214

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass								
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.98227	.50369	.02170	.51324	1.0196	-.02870	.49034	.51430	.48197
Stddev	.00075	.00074	.00191	.00007	.0020	.04370	.00007	.00055	.00211
%RSD	.07594	.14706	8.7897	.01408	.19248	152.26	.01402	.10697	.43876

#1	.98174	.50422	.02305	.51319	1.0182	-.05960	.49038	.51391	.48047
#2	.98280	.50317	.02035	.51329	1.0210	.00220	.49029	.51469	.48346

Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6020.9	83240.	5047.4
Stddev	7.5	43.	.5
%RSD	.12499	.05151	.00925

#1	6026.2	83270.	5047.8
#2	6015.5	83210.	5047.1

Sample Name: CCB Acquired: 6/16/2015 1:52:13 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W -0.0099	-0.0058	.00147	F .02933	-0.0033	.00011	.00362	.00678	.00006	-0.0028	.00003
Stddev	.00074	.00084	.00227	.00110	.00000	.00003	.00112	.00026	.00009	.00020	.00013
%RSD	74.132	146.40	154.70	3.7338	.05070	26.018	30.867	3.7649	160.79	70.546	436.94

#1	-0.0151	-0.0117	-0.0014	.03011	-0.0033	.00013	.00283	.00660	.00012	-0.0042	-0.0006
#2	-0.0047	.00002	.00307	.02856	-0.0033	.00009	.00441	.00696	-0.0001	-0.0014	.00012

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.00093			.00312							
Low Limit	-0.0093			-0.0312							

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00043	-0.0377	-0.09677	W .00263	.00138	-0.0001	.00102	.04252	.00009	.00155	-0.0127
Stddev	.00049	.00105	.02639	.00251	.00265	.00008	.00009	.00824	.00021	.00252	.00043
%RSD	113.37	27.931	27.267	95.374	191.79	1313.8	9.0775	19.389	227.23	162.26	34.289

#1	.00009	-0.0302	-0.07811	.00441	-0.0049	.00005	.00108	.03669	-0.0006	.00333	-0.0157
#2	.00078	-0.0451	-1.1543	.00086	.00325	-0.0006	.00095	.04835	.00024	-0.0023	-0.0096

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass						
High Limit				.00261							
Low Limit				-0.0261							

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00832	-0.0155	-0.00016	-0.01325	-0.00012	.00007	.00098	.00016	-0.00089	-0.03663	-0.00081
Stddev	.00074	.00284	.00241	.02079	.00053	.00009	.00093	.00005	.00043	.02011	.00011
%RSD	8.8695	183.18	1534.4	156.85	447.97	125.02	95.620	34.182	48.911	54.899	13.345

#1	.00780	-0.0356	-0.0186	-0.2795	.00026	.00001	.00032	.00012	-0.0119	-0.05085	-0.0088
#2	.00885	.00046	.00155	.00145	-0.0049	.00014	.00164	.00019	-0.0058	-0.02241	-0.0073

Check ?	None	Chk Pass									
High Limit											
Low Limit											

Elem	Zn2062	Zr3391
Units	ppm	ppm
Avg	-0.00324	-0.00004
Stddev	.00035	.00063
%RSD	10.846	1656.5
#1	-0.00349	.00041
#2	-0.00299	-0.0048

Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6132.9	85643.	5055.6
Stddev	13.4	313.	15.9
%RSD	.21770	.36520	.31419
#1	6123.5	85864.	5066.8
#2	6142.4	85421.	5044.4

Sample Name: CCVL3329632 Acquired: 6/16/2015 1:54:56 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00971	.11430	.01773	W .12664	.01050	.00106	W .12429	.21749	.00557	.01063	.01046	.01658
Stddev	.00012	.00005	.00037	.00018	.00035	.00003	.00018	.00526	.00015	.00010	.00018	.00023
%RSD	1.2046	.04321	2.1028	.14111	3.3117	3.0669	.14676	2.4164	2.7766	.91855	1.6997	1.3847

#1	.00962	.11434	.01747	.12677	.01025	.00104	.12416	.21377	.00568	.01056	.01033	.01642
#2	.00979	.11427	.01800	.12652	.01074	.00108	.12442	.22121	.00546	.01069	.01058	.01675

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				.10000			.10000					
Range				20.000%			20.000%					

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09671	3.0075	F .01371	.22591	.01071	.02072	1.1375	.04311	3.0039	.00840	.00388	.00941
Stddev	.00059	.0219	.00282	.00057	.00004	.00014	.0104	.00000	.0036	.00049	.00235	.00242
%RSD	.60828	.72955	20.584	.25058	.36943	.67739	.91117	.00268	.12067	5.7974	60.621	25.724

#1	.09629	2.9920	.01571	.22631	.01068	.02082	1.1449	.04311	3.0065	.00875	.00222	.00770
#2	.09712	3.0231	.01172	.22551	.01074	.02062	1.1302	.04311	3.0014	.00806	.00555	.01112

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass						
Value			.01000									
Range			30.000%									

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01514	.50646	.10507	.01061	.01594	.01047	W .01838	.05350	.00936	.02034	W .01805
Stddev	.00009	.00752	.00003	.00011	.00037	.00022	.00030	.03122	.00013	.00014	.00259
%RSD	.57001	1.4856	.03323	1.0750	2.3071	2.1420	1.6219	58.360	1.4374	.71148	14.348

#1	.01508	.50114	.10505	.01069	.01620	.01031	.01817	.03142	.00927	.02023	.01622
#2	.01520	.51178	.10510	.01053	.01568	.01063	.01859	.07557	.00946	.02044	.01988

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Warn					
Value							.01500				.01500
Range							20.000%				20.000%

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6200.5	86873.	5077.8
Stddev	8.9	151.	28.9
%RSD	.14330	.17364	.57009

#1	6206.8	86980.	5057.3
#2	6194.3	86766.	5098.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0087	F .03993	-0.0006	F .03161	F .00140	.00005	.00076	F 11.496	.00014
Stddev	.00034	.00064	.00099	.00007	.00020	.00002	.00270	.030	.00008
%RSD	38.573	1.5971	1641.6	.22724	14.179	48.848	356.86	.26266	55.224
#1	-0.0063	.04038	.00064	.03166	.00154	.00003	-.00115	11.474	.00009
#2	-0.0111	.03948	-.00076	.03156	.00126	.00007	.00267	11.517	.00020
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit		.03960		.00343	.00127			.07590	
Low Limit		-.03960		-.00343	-.00127			-.07590	
Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0014	.00022	.00105	F .05471	-.05678	W .00381	F .17836	F .00752	.00050
Stddev	.00014	.00003	.00013	.00604	.03848	.00114	.00121	.00005	.00023
%RSD	100.35	15.015	12.262	11.046	67.773	29.906	.67910	.63695	46.159
#1	-0.0024	.00024	.00114	.05043	-.08399	.00462	.17922	.00749	.00034
#2	-0.0004	.00020	.00096	.05898	-.02957	.00301	.17750	.00756	.00067
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Warn	Chk Fail	Chk Fail	Chk Pass
High Limit				.04840		.00261	.02354	.00056	
Low Limit				-.04840		-.00261	-.02354	-.00056	
Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05742	.00012	W .01742	-.00149	1.5330	-.00276	-.00286	W .04402	-.00041
Stddev	.00309	.00050	.00356	.00106	.0044	.00019	.00139	.00406	.00049
%RSD	5.3886	424.89	20.419	71.197	.28415	6.7569	48.743	9.2244	120.65
#1	.05524	-.00023	.01491	-.00224	1.5300	-.00289	-.00187	.04690	-.00076
#2	.05961	.00047	.01994	-.00074	1.5361	-.00262	-.00385	.04115	-.00006
Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	None	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit			.01350					.03470	
Low Limit			-.01350					-.03470	
Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391	
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	F .00732	.00138	W .00090	-.00070	W -.02116	-.00104	-.00205	.00415	
Stddev	.00018	.00018	.00099	.00076	.01260	.00007	.00010	.00044	
%RSD	2.5239	13.266	109.77	108.75	59.521	7.1278	4.7625	10.630	
#1	.00719	.00151	.00160	-.00124	-.01226	-.00109	-.00198	.00384	
#2	.00745	.00125	.00020	-.00016	-.03007	-.00099	-.00212	.00446	
Check ?	Chk Fail	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	
High Limit	.00066		.00060		.01610				
Low Limit	-.00066		-.00060		-.01610				
Int. Std.	Y_2243	Y_3600	Y_3774						
Line	224.306 {450}	360.073 { 94}	377.433 { 89}						
Units	Cts/S	Cts/S	Cts/S						
Avg	6154.5	86692.	5122.1						
Stddev	7.6	61.	1.0						
%RSD	.12308	.06995	.01963						
#1	6149.2	86649.	5122.8						
#2	6159.9	86734.	5121.4						

Sample Name: LCS 280-279820/2-A Acquired: 6/16/2015 2:00:11 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 279820 200.7 FGD

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05174	1.9887	.98158	1.0476	2.2038	.05107	2.0510	53.858	.10467
Stddev	.00055	.0012	.00512	.0010	.0131	.00041	.0034	.281	.00028
%RSD	1.0710	.05926	.52178	.09329	.59441	.81133	.16589	.52153	.27207

#1	.05214	1.9879	.98521	1.0469	2.2130	.05136	2.0534	54.056	.10447
#2	.05135	1.9896	.97796	1.0483	2.1945	.05077	2.0486	53.659	.10487

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49834	.20212	.25972	.97382	50.504	1.0803	50.812	.51569	1.0606
Stddev	.00035	.00029	.00101	.00548	.443	.0094	.002	.00009	.0011
%RSD	.07100	.14412	.38735	.56317	.87783	.87112	.00348	.01687	.10629

#1	.49860	.20192	.26043	.97770	50.818	1.0869	50.811	.51563	1.0614
#2	.49809	.20233	.25901	.96994	50.191	1.0736	50.813	.51575	1.0598

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	54.861	.49690	10.257	.50840	F 3.2818	.50446	1.9866	10.114	2.0127
Stddev	.304	.00074	.002	.00259	.0032	.00023	.0022	.104	.0012
%RSD	.55475	.14924	.01860	.50964	.09716	.04590	.11286	1.0247	.06075

#1	55.076	.49743	10.256	.50656	3.2796	.50462	1.9882	10.187	2.0119
#2	54.646	.49638	10.258	.51023	3.2841	.50429	1.9850	10.040	2.0136

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					2.2000				
Low Limit					1.8000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0389	.99605	1.0544	2.0101	2.0439	.50951	.51155	.54168
Stddev	.0053	.00186	.0010	.0011	.0200	.00067	.00130	.00328
%RSD	.51521	.18680	.09325	.05679	.97971	.13212	.25447	.60472

#1	1.0427	.99736	1.0551	2.0093	2.0297	.50904	.51063	.54400
#2	1.0352	.99473	1.0537	2.0109	2.0580	.50999	.51247	.53937

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5875.8	81906.	5033.8
Stddev	6.9	163.	34.5
%RSD	.11746	.19901	.68547

#1	5870.9	82022.	5009.4
#2	5880.7	81791.	5058.2

Sample Name: 280-69919-G-1-D @50 Acquired: 6/16/2015 2:02:35 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 279820 200.7 FGD

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0078	2.5598	F 2.8213	.00542	.30124	.01315	.00023	-0.0114	105.78
Stddev	.00043	.0003	.0060	.00088	.00102	.00025	.00001	.00042	.22
%RSD	54.425	.01136	.21073	16.317	.33938	1.8949	2.5903	36.833	.20792
#1	-0.0048	2.5596	2.8255	.00479	.30196	.01297	.00024	-0.0144	105.94
#2	-0.0108	2.5600	2.8171	.00604	.30051	.01333	.00023	-0.0085	105.63
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			1000.0						
Low Limit			3.0000						

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00008	.00217	.00788	.01074	4.2728	2.5956	.01233	24.416	.76554
Stddev	.00010	.00038	.00010	.00019	.0043	.0428	.00175	.004	.00116
%RSD	123.28	17.307	1.2416	1.8018	.10046	1.6504	14.197	.01599	.15105
#1	.00001	.00190	.00781	.01060	4.2698	2.6259	.01109	24.413	.76472
#2	.00015	.00243	.00795	.01087	4.2759	2.5653	.01357	24.418	.76636
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00255	6.5418	.00930	1.3169	.00248	97.015	-0.00107	.00441	1.7807
Stddev	.00044	.0039	.00002	.0037	.00073	.039	.00120	.00162	.0120
%RSD	17.111	.05925	.24928	.28223	29.378	.04058	112.98	36.741	.67352
#1	.00224	6.5446	.00931	1.3195	.00300	97.043	-0.00192	.00326	1.7892
#2	.00286	6.5391	.00928	1.3142	.00197	96.988	-0.0021	.00555	1.7723
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00036	.21572	.00225	.02069	-0.00010	-0.02672	.00380	.02080	.00378
Stddev	.00043	.00013	.00166	.00019	.00071	.04186	.00056	.00032	.00094
%RSD	117.37	.06035	73.737	.92810	745.09	156.66	14.631	1.5251	24.942
#1	-0.0006	.21563	.00342	.02055	.00041	-0.05632	.00420	.02102	.00311
#2	-0.0067	.21581	.00107	.02082	-0.00060	.00288	.00341	.02058	.00445
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	5965.8	83738.	5067.3
Stddev	5.1	21.	.9
%RSD	.08471	.02548	.01855
#1	5969.3	83723.	5068.0
#2	5962.2	83753.	5066.6

Sample Name: 280-69919-G-2-B @50 Acquired: 6/16/2015 2:05:10 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 279820 200.7 FGD

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0024	1.9021	.00165	.24077	.01242	.00022	-0.00299	110.02	.00022
Stddev	.00013	.0017	.00055	.00013	.00013	.00014	.00010	.36	.00002
%RSD	55.638	.08969	33.272	.05231	1.0505	65.469	3.3944	.32903	8.6574
#1	-0.0015	1.9033	.00203	.24086	.01251	.00032	-.00292	109.77	.00024
#2	-0.00034	1.9009	.00126	.24068	.01233	.00012	-.00306	110.28	.00021

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00171	.00603	.00852	3.4193	2.0236	.00839	21.313	.58212	.00080
Stddev	.00052	.00009	.00037	.0143	.0397	.00024	.013	.00022	.00010
%RSD	30.208	1.5132	4.3614	.41778	1.9608	2.8289	.06268	.03782	12.073
#1	.00208	.00596	.00879	3.4092	1.9955	.00855	21.304	.58227	.00073
#2	.00135	.00609	.00826	3.4294	2.0516	.00822	21.323	.58196	.00086

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.6381	.00724	1.0940	.00115	96.103	-.00170	-.00314	2.1222	-.00071
Stddev	.0037	.00039	.0045	.00113	.146	.00149	.00325	.0166	.00016
%RSD	.06577	5.4113	.41472	98.152	.15157	87.674	103.58	.78422	22.882
#1	5.6355	.00696	1.0972	.00195	96.206	-.00275	-.00543	2.1340	-.00082
#2	5.6408	.00751	1.0908	.00035	96.000	-.00065	-.00084	2.1105	-.00059

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.18319	.00178	.01772	-.00039	-.03762	.00276	.01371	.00218
Stddev	.00045	.00116	.00018	.00040	.01236	.00016	.00013	.00419
%RSD	.24501	65.192	1.0038	101.36	32.849	5.9653	.93768	192.53
#1	.18287	.00096	.01759	-.00011	-.02888	.00287	.01362	-.00079
#2	.18351	.00259	.01784	-.00067	-.04635	.00264	.01380	.00514

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5956.6	83797.	5065.7
Stddev	8.9	183.	2.0
%RSD	.14902	.21888	.03941
#1	5950.3	83668.	5064.3
#2	5962.9	83927.	5067.2

Sample Name: 69919-G-2-B SD@250 Acquired: 6/16/2015 2:07:47 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 279820 200.7 FGD

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00035	40653	.00160	.05940	.00193	.00008	-0.00070	21.916	.00025
Stddev	.00034	.00080	.00057	.00028	.00013	.00007	.00033	.008	.00024
%RSD	98.330	.19779	35.954	.47413	6.4727	88.914	47.228	.03459	94.121
#1	-0.00059	.40596	.00200	.05920	.00184	.00003	-0.00093	21.922	.00008
#2	-0.00011	.40710	.00119	.05960	.00202	.00013	-0.00047	21.911	.00042

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00012	.00135	.00195	.69111	.29769	.00384	4.3882	.11871	.00027
Stddev	.00009	.00005	.00004	.00022	.02646	.00043	.0130	.00016	.00026
%RSD	74.191	3.9644	2.2746	.03224	8.8890	11.245	.29700	.13498	96.352
#1	.00006	.00139	.00192	.69127	.27898	.00354	4.3974	.11882	.00009
#2	.00019	.00131	.00198	.69096	.31640	.00415	4.3790	.11859	.00046

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.1343	.00173	.21356	-0.00094	19.113	-0.00130	-0.00159	.41374	-0.00037
Stddev	.0037	.00030	.00078	.00048	.030	.00097	.00044	.02236	.00122
%RSD	.32808	17.573	.36484	50.841	.15733	74.126	27.503	5.4034	331.28
#1	1.1317	.00152	.21411	-0.00060	19.092	-0.00062	-0.00128	.42954	-0.00123
#2	1.1369	.00195	.21301	-0.00127	19.134	-0.00199	-0.00190	.39793	.00049

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03685	.00132	.00327	-0.00050	-0.03419	.00017	.00054	.00207
Stddev	.00003	.00073	.00032	.00072	.02654	.00042	.00034	.00065
%RSD	.08556	55.170	9.6958	144.90	77.615	248.96	62.776	31.604
#1	.03687	.00183	.00349	.00001	-.05296	.00047	.00078	.00161
#2	.03682	.00080	.00305	-0.00101	-0.01543	-0.00013	.00030	.00253

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6084.4	85657.	5082.0
Stddev	2.9	271.	16.4
%RSD	.04835	.31653	.32305
#1	6082.3	85465.	5070.4
#2	6086.4	85849.	5093.6

Sample Name: 69919-G-2-C MS @50 Acquired: 6/16/2015 2:10:26 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 279820 200.7 FGD

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00060	1.8599	.02350	.25537	.01251	.00128	.04520	106.74	.00232
Stddev	.00023	.0047	.00118	.00027	.00015	.00001	.00453	.51	.00026
%RSD	38.465	.25436	5.0167	.10397	1.2014	.52952	10.019	.47804	11.045

#1	.00044	1.8632	.02267	.25556	.01262	.00128	.04200	107.10	.00250
#2	.00076	1.8565	.02434	.25518	.01241	.00129	.04840	106.38	.00214

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01219	.00958	.01297	2.9687	3.0367	.03062	21.870	.49814	.02288
Stddev	.00014	.00010	.00051	.0127	.0254	.00015	.027	.00035	.00022
%RSD	1.1677	1.0726	3.9364	.42908	.83558	.48563	.12184	.07018	.97376

#1	.01229	.00951	.01261	2.9777	3.0547	.03072	21.851	.49790	.02304
#2	.01209	.00966	.01333	2.9597	3.0188	.03051	21.888	.49839	.02273

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.6599	.01729	1.1639	.01031	95.126	.01142	.04097	2.0033	.04230
Stddev	.0034	.00026	.0006	.00047	.105	.00131	.00615	.0038	.00048
%RSD	.05065	1.5091	.04685	4.5296	.10996	11.488	15.010	.19101	1.1301

#1	6.6575	.01711	1.1635	.01064	95.200	.01234	.04532	2.0006	.04196
#2	6.6623	.01748	1.1642	.00998	95.052	.01049	.03662	2.0060	.04264

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.17588	.02199	.03614	.04347	.02696	.01306	.02173	.01480
Stddev	.00067	.00089	.00020	.00010	.00928	.00042	.00058	.00002
%RSD	.37937	4.0510	.55924	.23401	34.404	3.1843	2.6655	.15229

#1	.17636	.02262	.03628	.04340	.03352	.01277	.02214	.01482
#2	.17541	.02136	.03600	.04355	.02040	.01335	.02132	.01479

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5947.5	83685.	5068.4
Stddev	3.0	225.	21.7
%RSD	.05113	.26899	.42856

#1	5945.3	83526.	5053.1
#2	5949.6	83844.	5083.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00050	1.8011	.02381	.25694	.01299	.00121	.04510	107.11	.00255
Stddev	.00013	.0023	.00167	.00020	.00026	.00009	.00449	.09	.00030
%RSD	26.380	.12979	7.0152	.07954	1.9854	7.2089	9.9447	.08314	11.620

#1	.00059	1.8027	.02499	.25679	.01281	.00115	.04827	107.05	.00276
#2	.00041	1.7994	.02263	.25708	.01318	.00127	.04193	107.18	.00234

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01213	.00977	.01312	2.9574	3.0053	.03001	22.060	.50179	.02275
Stddev	.00003	.00012	.00041	.0123	.0375	.00091	.046	.00008	.00002
%RSD	.27441	1.2339	3.1594	.41622	1.2484	3.0220	.20823	.01668	.09738

#1	.01211	.00969	.01341	2.9487	2.9787	.03066	22.093	.50174	.02277
#2	.01216	.00986	.01282	2.9661	3.0318	.02937	22.028	.50185	.02273

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.7130	.01758	1.1578	.01076	95.641	.00946	.04243	1.8114	.04205
Stddev	.0156	.00016	.0057	.00131	.026	.00068	.00136	.0049	.00107
%RSD	.23158	.92145	.49342	12.175	.02702	7.1449	3.1964	.27060	2.5400

#1	6.7020	.01769	1.1618	.00983	95.659	.00898	.04339	1.8080	.04280
#2	6.7240	.01746	1.1537	.01168	95.623	.00994	.04147	1.8149	.04129

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.16801	.02178	.03584	.04343	-.00364	.01349	.02151	.01566
Stddev	.00021	.00081	.00001	.00022	.01676	.00029	.00042	.00157
%RSD	.12660	3.7402	.03448	.50916	459.94	2.1784	1.9362	10.030

#1	.16786	.02120	.03583	.04359	-.01549	.01369	.02180	.01455
#2	.16816	.02235	.03585	.04327	.00821	.01328	.02121	.01677

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5932.8	83414.	5073.4
Stddev	1.7	54.	21.0
%RSD	.02935	.06493	.41400

#1	5934.0	83376.	5088.3
#2	5931.5	83453.	5058.6

Sample Name: 69919-G-2-B PDS@50 Acquired: 6/16/2015 2:15:36 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 279820 200.7 FGD

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00973	W 2.7461	W 3.0173	.19621	.33468	.11839	.04808	-.00603	126.92
Stddev	.00102	.0057	.0296	.00320	.00070	.00016	.00030	.00177	.04
%RSD	10.529	.20889	.98278	1.6310	.20853	.13398	.61772	29.424	.03435
#1	.00900	2.7421	2.9963	.19395	.33517	.11828	.04787	-.00478	126.95
#2	.01045	2.7502	3.0382	.19847	.33419	.11851	.04829	-.00729	126.89
Check ?	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass				
High Limit		2.7000	500.00						
Low Limit		-.05000	4.0000						

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05033	.04960	.05438	.05840	4.2802	21.491	.11315	39.648	.61305
Stddev	.00007	.00064	.00031	.00062	.0049	.035	.00131	.048	.00041
%RSD	.14188	1.2865	.57179	1.0558	.11407	.16384	1.1594	.12144	.06705
#1	.05038	.04915	.05416	.05797	4.2767	21.516	.11222	39.682	.61334
#2	.05028	.05005	.05460	.05884	4.2836	21.466	.11408	39.614	.61276
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05032	27.259	.05506	3.0938	.09779	95.906	.09659	.18674	6.9297
Stddev	.00019	.199	.00020	.0096	.00001	.007	.00023	.00003	.0191
%RSD	.38000	.72889	.36001	.30923	.00730	.00685	.23368	.01705	.27596
#1	.05046	27.118	.05492	3.1006	.09779	95.911	.09643	.18676	6.9162
#2	.05019	27.399	.05520	3.0870	.09778	95.901	.09675	.18672	6.9432
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09595	.22969	.18835	.06785	.19340	.48032	.05160	.21521	.05916
Stddev	.00076	.00009	.00020	.00042	.00024	.01938	.00021	.00017	.00067
%RSD	.78814	.03926	.10703	.62189	.12557	4.0344	.39820	.08085	1.1324
#1	.09649	.22975	.18821	.06755	.19357	.49402	.05146	.21533	.05869
#2	.09542	.22962	.18849	.06815	.19323	.46661	.05175	.21509	.05963
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5854.3	82504.	5045.9
Stddev	9.1	264.	15.6
%RSD	.15580	.31941	.30949
#1	5847.8	82317.	5034.9
#2	5860.7	82690.	5057.0

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0022	48.973	-0.0017	.01237	-0.0011	.00002	.99521	.01226	-0.0130	.00108	.00053	.01792	48.225
Stddev	.00013	.303	.00337	.00022	.00047	.00009	.00157	.00200	.00014	.00035	.00003	.00057	.302
%RSD	56.553	.61889	1978.7	1.8017	441.07	353.74	.15820	16.279	11.040	32.653	6.2555	3.1673	.62724

#1	-0.0013	48.758	.00221	.01221	-0.0044	-0.0004	.99410	.01085	-0.0120	.00133	.00051	.01832	48.011
#2	-0.0031	49.187	-.00255	.01252	.00022	.00009	.99632	.01367	-0.0141	.00083	.00055	.01752	48.439

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.05965	.00561	-0.00238	.00155	-0.00175	257.42	.00170	.00619	-0.00107	4.9569	.01140	-0.00118	.00702
Stddev	.01846	.00248	.00219	.00001	.00002	1.78	.00014	.00072	.00007	.0129	.00039	.00986	.01265
%RSD	30.944	44.264	91.916	.80099	1.2883	.69098	8.1404	11.683	6.1693	.25923	3.4408	837.88	180.16

#1	-0.07270	.00385	-0.00083	.00156	-0.00173	256.17	.00160	.00568	-0.00111	4.9660	.01112	.00579	-0.00192
#2	-0.04660	.00736	-.00393	.00154	-0.00176	258.68	.00180	.00670	-0.00102	4.9478	.01168	-.00815	.01597

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00072	.00054	4.7827	.00178	-0.00002	9.6821	.00175	-0.00093	.20340
Stddev	.00051	.00009	.0073	.00028	.00051	.0048	.00012	.00007	.00306
%RSD	71.087	16.573	.15325	15.554	2767.1	.04915	6.9387	7.1607	1.5036

#1	.00109	.00048	4.7879	.00159	.00034	9.6787	.00183	-0.00098	.20124
#2	.00036	.00060	4.7776	.00198	-0.00038	9.6854	.00166	-0.00088	.20557

Check ?	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5865.1	81511.	5050.2
Stddev	2.8	41.	75.4
%RSD	.04822	.05001	1.4939

#1	5867.1	81540.	5103.6
#2	5863.1	81482.	4996.9

Sample Name: ccv-3330457 Acquired: 6/16/2015 2:20:40 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49179	.50283	.96177	.50231	.52594	.48791	-.05241	4.9319	.50800	.49477	.49229	.49797	2.3363
Stddev	.00072	.00017	.00127	.00312	.00071	.00064	.00441	.0012	.00096	.00109	.00125	.00090	.0004
%RSD	.14601	.03428	.13247	.62062	.13586	.13055	8.4125	.02493	.18920	.22050	.25430	.18065	.01802

#1	.49230	.50271	.96087	.50010	.52543	.48746	-.05553	4.9310	.50732	.49400	.49141	.49861	2.3360
#2	.49128	.50295	.96267	.50451	.52644	.48836	-.04929	4.9327	.50868	.49555	.49318	.49734	2.3366

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	48.650	1.0438	19.709	.49631	.49697	5.2613	.49614	.97005	1.0133	.00862	.99295	.96727	4.8139
Stddev	.083	.0008	.005	.00000	.00121	.0016	.00017	.00006	.0007	.00183	.00510	.00553	.0043
%RSD	.17085	.07402	.02686	.00025	.24363	.03086	.03466	.00574	.07003	21.267	.51369	.57127	.09020

#1	48.591	1.0433	19.713	.49631	.49612	5.2602	.49602	.97001	1.0128	.00992	.99655	.96336	4.8170
#2	48.708	1.0444	19.705	.49631	.49783	5.2625	.49627	.97008	1.0138	.00733	.98934	.97118	4.8108

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass								
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.98817	.50297	.01792	.50362	1.0171	.00406	.48502	.49164	.48788
Stddev	.00107	.00100	.00099	.00058	.0005	.02326	.00059	.00006	.00044
%RSD	.10826	.19841	5.5519	.11540	.04725	572.86	.12077	.01295	.09085

#1	.98893	.50227	.01722	.50404	1.0168	-.01238	.48460	.49168	.48820
#2	.98741	.50368	.01862	.50321	1.0175	.02050	.48543	.49159	.48757

Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6001.4	84051.	5078.7
Stddev	10.3	37.	16.9
%RSD	.17108	.04390	.33288

#1	6008.7	84077.	5090.7
#2	5994.2	84024.	5066.8

Sample Name: CCB Acquired: 6/16/2015 2:23:08 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00005	-.00048	-.00167	F .00807	-.00042	.00015	.00187	.00277	.00020	-.00041	.00007	.00039
Stddev	.00012	.00030	.00283	.00035	.00035	.00003	.00297	.00131	.00002	.00024	.00012	.00046
%RSD	254.19	61.197	169.32	4.2875	81.839	22.559	158.50	47.281	11.063	58.399	163.68	119.06
#1	-.00004	-.00069	.00033	.00782	-.00067	.00013	.00397	.00369	.00018	-.00024	-.00001	.00006
#2	.00013	-.00027	-.00368	.00831	-.00018	.00017	-.00023	.00184	.00021	-.00058	.00016	.00072

Check ?	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
High Limit	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Low Limit				.00312 -.00312								

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00023	-.05298	.00259	.00063	.00000	.00088	.04138	.00012	.00268	-.00161	.00381	.00147
Stddev	.00279	.02075	.00177	.00071	.00002	.00012	.00428	.00002	.00094	.00040	.00069	.00188
%RSD	1223.2	39.170	68.383	112.45	431.04	13.627	10.352	18.427	35.205	24.880	18.137	127.83
#1	.00220	-.03831	.00384	.00113	-.00001	.00079	.03835	.00013	.00335	-.00132	.00430	.00280
#2	-.00174	-.06766	.00134	.00013	.00002	.00096	.04441	.00010	.00201	-.00189	.00332	.00014

Check ?	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
High Limit	Chk Pass	None	Chk Pass									
Low Limit												

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00100	.00131	-.00015	.00001	.00120	.00039	-.00027	-.02303	-.00100	-.00289	.00105
Stddev	.00305	.00208	.00053	.00005	.00027	.00031	.00108	.04098	.00085	.00003	.00220
%RSD	303.73	157.95	365.00	405.79	22.712	79.805	407.72	177.89	85.581	1.0269	209.85
#1	-.00316	-.00015	-.00052	.00005	.00139	.00061	-.00103	.00594	-.00160	-.00291	.00261
#2	.00115	.00278	.00023	-.00002	.00101	.00017	.00050	-.05201	-.00039	-.00287	-.00051

Check ?	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
High Limit	Chk Pass										
Low Limit											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6121.4	86692.	5059.9
Stddev	4.5	89.	11.4
%RSD	.07314	.10223	.22453
#1	6118.3	86629.	5067.9
#2	6124.6	86754.	5051.9

Sample Name: CCVL3330451 Acquired: 6/16/2015 2:25:49 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01030	.10775	.01654	.10662	.01028	.00108	W .12423	.21539	.00550	.01032	.01036	.01653
Stddev	.00032	.00021	.00176	.00042	.00012	.00007	.00320	.00416	.00012	.00011	.00011	.00023
%RSD	3.1317	.19403	10.664	.39471	1.1557	6.1355	2.5731	1.9294	2.1803	1.0344	1.1085	1.3963

#1	.01053	.10760	.01529	.10632	.01020	.00104	.12649	.21245	.00541	.01024	.01044	.01637
#2	.01007	.10790	.01779	.10692	.01036	.00113	.12197	.21833	.00558	.01039	.01028	.01670

Check ?	Chk Pass	Chk Warn	Chk Pass									
Value							.10000					
Range							20.000%					

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09462	2.9751	F .01317	.22047	.01056	.02003	1.1158	.04193	2.9193	.00797	.00258	W .00765
Stddev	.00089	.0080	.00260	.00078	.00004	.00018	.0020	.00000	.0025	.00003	.00253	.00001
%RSD	.93589	.26782	19.728	.35236	.39901	.88506	.18008	.00965	.08702	.41916	97.799	.10711

#1	.09399	2.9807	.01134	.21992	.01059	.01990	1.1172	.04193	2.9175	.00795	.00437	.00765
#2	.09524	2.9694	.01501	.22102	.01053	.02015	1.1144	.04193	2.9211	.00800	.00080	.00764

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Warn						
Value			.01000									.01000
Range			30.000%									-20.000%

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .01154	.50300	.10329	.01055	.01507	.01016	.01660	F .08021	.00878	.01972	.01734
Stddev	.00165	.02461	.00032	.00010	.00063	.00042	.00125	.00259	.00098	.00069	.00022
%RSD	14.331	4.8933	.31386	.92839	4.1801	4.1186	7.5559	3.2263	11.217	3.4993	1.2411

#1	.01037	.52040	.10352	.01062	.01462	.01046	.01571	.07838	.00948	.02020	.01750
#2	.01271	.48559	.10306	.01048	.01551	.00987	.01748	.08203	.00808	.01923	.01719

Check ?	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass					
Value	.01500							.06000			
Range	-20.000%							30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6163.8	87120.	5117.0
Stddev	12.4	278.	20.3
%RSD	.20187	.31909	.39584

#1	6172.6	87317.	5102.7
#2	6155.0	86924.	5131.4

Sample Name: 280-69919-G-3-B @50 Acquired: 6/16/2015 2:28:26 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 279820 200.7 FGD

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00035	1.9120	-0.00003	.27507	.01281	.00030	-0.00244	118.31	.00016
Stddev	.00017	.0046	.00227	.00064	.00029	.00014	.00314	.41	.00008
%RSD	49.288	.24318	7796.3	.23414	2.2533	46.148	128.96	.34944	49.264
#1	-0.00048	1.9087	-0.00163	.27462	.01261	.00040	-0.00021	118.02	.00022
#2	-0.00023	1.9153	.00157	.27553	.01302	.00020	-0.00466	118.60	.00011

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00216	.00772	.01428	5.2461	2.0458	.00873	24.183	.60566	.00105
Stddev	.00018	.00000	.00012	.0112	.0232	.00019	.038	.00023	.00016
%RSD	8.1065	.05096	.84743	.21427	1.1346	2.2208	.15514	.03868	14.919
#1	.00229	.00771	.01420	5.2381	2.0294	.00887	24.156	.60549	.00094
#2	.00204	.00772	.01437	5.2540	2.0622	.00859	24.210	.60582	.00116

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.4397	.00849	1.1652	.00110	92.777	-0.00101	-0.00109	2.3749	-0.00105
Stddev	.0344	.00042	.0054	.00105	.137	.00275	.00158	.0156	.00023
%RSD	.53418	4.9585	.46167	95.591	.14718	273.16	144.64	.65796	21.518
#1	6.4154	.00819	1.1614	.00036	92.680	-0.00295	-0.00220	2.3860	-0.00121
#2	6.4640	.00878	1.1690	.00185	92.873	.00094	.00002	2.3639	-0.00089

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.19913	.00190	.04033	-0.00020	-0.01337	.00381	.01309	.00127
Stddev	.00050	.00007	.00025	.00009	.01257	.00025	.00009	.00022
%RSD	.25280	3.5915	.63068	44.116	94.021	6.6091	.66239	17.383
#1	.19877	.00195	.04051	-0.00014	-0.00448	.00399	.01303	.00143
#2	.19948	.00185	.04015	-0.00026	-0.02225	.00363	.01315	.00111

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5903.3	83639.	5052.6
Stddev	11.2	250.	19.8
%RSD	.19024	.29948	.39265
#1	5911.2	83816.	5066.7
#2	5895.4	83462.	5038.6

Sample Name: 280-69919-G-4-B @50 Acquired: 6/16/2015 2:30:59 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment: 279820 200.7 FGD

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0012	1.7374	.00261	.28526	.01016	.00008	-0.00064	104.67	.00033
Stddev	.00026	.0001	.00129	.00172	.00040	.00003	.00073	.29	.00012
%RSD	226.00	.00803	49.504	.60131	3.9478	40.631	114.94	.27427	37.304
#1	-0.00030	1.7375	.00170	.28405	.01045	.00006	-0.00012	104.88	.00024
#2	.00007	1.7373	.00352	.28648	.00988	.00010	-0.00115	104.47	.00042

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00141	.00570	.00777	3.0900	2.2217	.00912	25.653	.46690	.00062
Stddev	.00021	.00003	.00050	.0038	.0377	.00042	.005	.00029	.00020
%RSD	15.015	.49898	6.3753	.12213	1.6966	4.6539	.01950	.06251	31.731
#1	.00156	.00572	.00812	3.0873	2.1951	.00882	25.656	.46711	.00075
#2	.00126	.00568	.00742	3.0926	2.2484	.00942	25.649	.46670	.00048

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.7673	.00696	1.0810	-0.0076	101.54	-0.00093	-0.0108	2.2163	-0.0068
Stddev	.0084	.00009	.0015	.00107	.10	.00010	.00231	.0195	.00006
%RSD	.12367	1.2963	.13539	140.28	.10094	11.262	214.89	.88032	9.0826
#1	6.7732	.00703	1.0800	-0.00151	101.47	-0.00085	.00056	2.2301	-0.00073
#2	6.7614	.00690	1.0821	-0.00001	101.62	-0.00100	-0.00271	2.2025	-0.00064

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.13888	.00379	.01341	.00131	-.04884	.00234	.01028	.00258
Stddev	.00028	.00129	.00060	.00074	.02459	.00005	.00028	.00144
%RSD	.19846	33.991	4.4662	56.920	50.348	2.0500	2.6818	55.866
#1	.13908	.00288	.01299	.00184	-.03145	.00237	.01048	.00360
#2	.13869	.00470	.01384	.00078	-.06623	.00231	.01009	.00156

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5923.2	83568.	5041.2
Stddev	10.0	69.	5.4
%RSD	.16949	.08277	.10708
#1	5916.1	83519.	5045.0
#2	5930.3	83616.	5037.3

Sample Name: 280-69919-G-5-B @50 Acquired: 6/16/2015 2:33:34 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 279820 200.7 FGD

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0020	-0.0139	.00154	.08969	.02411	.00010	-0.0102	347.20	-0.0018
Stddev	.00010	.00062	.00205	.00029	.00060	.00014	.00111	1.08	.00011
%RSD	51.422	44.654	133.10	.32474	2.5056	146.97	109.23	.31114	62.966

#1	-0.0013	-0.0182	.00299	.08989	.02453	-0.0000	-0.0023	347.96	-0.0010
#2	-0.0028	-0.0095	.00009	.08948	.02368	.00020	-0.0180	346.43	-0.0026

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00042	.00030	.00132	-0.00075	.67481	.00336	8.4815	.10129	.00077
Stddev	.00012	.00024	.00056	.00121	.03788	.00169	.0004	.00031	.00001
%RSD	28.801	80.554	42.648	161.94	5.6134	50.102	.00530	.30992	1.8703

#1	.00033	.00013	.00092	.00011	.64802	.00217	8.4818	.10107	.00078
#2	.00050	.00048	.00172	-.00160	.70159	.00456	8.4812	.10151	.00076

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.7382	.00176	.00229	W -0.00319	5.6152	-0.00226	.00126	.13247	-0.00083
Stddev	.0080	.00045	.00226	.00101	.0160	.00004	.00253	.04613	.00016
%RSD	.29078	25.582	98.837	31.676	.28518	1.6493	201.30	34.824	19.316

#1	2.7439	.00144	.00069	-.00248	5.6265	-.00229	-.00053	.16509	-.00094
#2	2.7326	.00207	.00389	-.00390	5.6039	-.00224	.00305	.09985	-.00071

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.00300					

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.22380	.00035	-.00015	.00150	-.01810	-0.00077	-0.00268	.00337
Stddev	.00136	.00158	.00002	.00072	.00133	.00028	.00070	.00110
%RSD	.60819	458.00	15.953	48.290	7.3230	37.046	25.980	32.689

#1	.22476	-.00077	-.00016	.00201	-.01904	-.00097	-.00317	.00259
#2	.22284	.00146	-.00013	.00099	-.01717	-.00056	-.00218	.00415

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5695.6	80401.	4983.3
Stddev	3.4	86.	17.4
%RSD	.05968	.10642	.34831

#1	5693.2	80341.	4971.0
#2	5698.0	80462.	4995.6

Sample Name: 280-69919-F-6-B @50 Acquired: 6/16/2015 2:36:17 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 279820 200.7 FGD

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00040	.00122	.00031	.00654	.00017	.00000	.00261	.17454	.00010
Stddev	.00005	.00041	.00125	.00025	.00041	.00006	.00299	.00211	.00035
%RSD	12.901	34.061	402.30	3.7532	244.88	1250.2	114.54	1.2073	332.88

#1	.00037	.00092	-.00057	.00636	-.00012	-.00004	.00050	.17603	.00035
#2	.00044	.00151	.00120	.00671	.00046	.00005	.00473	.17305	-.00014

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00015	.00007	.00021	.00407	-.06234	.00318	.04927	.00107	-.00003
Stddev	.00011	.00026	.00018	.00143	.06391	.00051	.00181	.00009	.00027
%RSD	72.604	368.09	85.670	35.008	102.51	15.886	3.6674	8.1004	865.61

#1	-.00022	.00025	.00008	.00307	-.10754	.00283	.05054	.00114	-.00022
#2	-.00007	-.00011	.00033	.00508	-.01715	.00354	.04799	.00101	.00016

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.18872	.00022	.00381	-.00171	.07693	-.00266	-.00264	.07522	-.00040
Stddev	.01108	.00038	.00448	.00133	.00558	.00226	.00058	.02743	.00021
%RSD	5.8706	175.09	117.67	77.735	7.2503	85.114	21.947	36.472	52.476

#1	.19655	-.00005	.00698	-.00077	.08088	-.00426	-.00305	.09461	-.00025
#2	.18088	.00048	.00064	-.00265	.07299	-.00106	-.00223	.05582	-.00054

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00121	.00214	.00004	-.00105	-.00221	-.00069	-.00268	.00066
Stddev	.00002	.00100	.00042	.00085	.02038	.00054	.00041	.00081
%RSD	1.7335	46.593	1125.6	80.688	921.60	78.661	15.158	121.85

#1	.00123	.00285	-.00026	-.00165	.01220	-.00031	-.00296	.00123
#2	.00120	.00144	.00034	-.00045	-.01663	-.00107	-.00239	.00009

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6055.3	85914.	5032.4
Stddev	2.8	325.	5.0
%RSD	.04640	.37781	.09916

#1	6053.3	85685.	5035.9
#2	6057.2	86144.	5028.9

Sample Name: 280-69919-F-7-B @50 Acquired: 6/16/2015 2:38:59 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 279820 200.7 FGD

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0023	-0.0071	-0.0005	.17057	.00059	.00005	-0.00079	12.883	.00030
Stddev	.00024	.00064	.00060	.00130	.00008	.00006	.00101	.038	.00000
%RSD	102.83	90.367	1215.7	.76053	13.343	119.83	128.25	.29500	.56166

#1	-0.00006	-0.00026	.00038	.17149	.00053	.00009	-0.00007	12.910	.00030
#2	-0.00040	-0.00117	-.00047	.16965	.00064	.00001	-0.00151	12.856	.00030

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0028	.00064	.00067	-0.00116	1.0559	.00600	15.045	.00100	.00009
Stddev	.00004	.00032	.00024	.00278	.0533	.00095	.041	.00004	.00023
%RSD	12.554	50.654	35.072	240.43	5.0463	15.842	.27372	3.5749	253.27

#1	-0.00026	.00041	.00084	-0.00312	1.0182	.00668	15.074	.00098	.00026
#2	-0.00031	.00087	.00051	.00081	1.0935	.00533	15.015	.00103	-.00007

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.1819	.00024	.00292	-0.00267	24.164	-0.00201	.00034	.56947	-0.00109
Stddev	.0048	.00015	.00075	.00192	.020	.00002	.00293	.02283	.00012
%RSD	.11463	63.771	25.809	71.858	.08410	.98987	870.98	4.0090	10.751

#1	4.1853	.00035	.00346	-0.00131	24.149	-0.00199	.00241	.55333	-0.00117
#2	4.1785	.00013	.00239	-0.00402	24.178	-0.00202	-0.00173	.58562	-0.00100

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03248	.00066	.00048	-0.00090	-0.01947	-0.00067	-0.00256	.00151
Stddev	.00000	.00205	.00029	.00100	.04267	.00028	.00006	.00163
%RSD	.00956	312.12	60.285	111.85	219.18	42.627	2.2639	107.62

#1	.03248	.00211	.00027	-0.00161	-.04964	-0.00087	-0.00252	.00266
#2	.03248	-.00079	.00068	-0.00019	.01070	-0.00047	-0.00260	.00036

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5988.0	84827.	5028.8
Stddev	11.2	149.	3.6
%RSD	.18698	.17609	.07200

#1	5995.9	84722.	5031.3
#2	5980.1	84933.	5026.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0080	.09814	.00224	.46633	.04832	.00004	.00069	95.046	.00003
Stddev	.00046	.00001	.00057	.00020	.00019	.00001	.00131	.131	.00009
%RSD	58.152	.01225	25.616	.04256	.39846	24.537	188.34	.13796	249.53
#1	-0.0047	.09815	.00183	.46619	.04846	.00004	-.00023	95.139	-.00003
#2	-0.0112	.09813	.00265	.46647	.04819	.00005	.00162	94.954	.00010

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00025	.00035	.00326	.06478	1.6899	.02271	4.6337	.04266	.01101
Stddev	.00022	.00005	.00009	.00434	.0429	.00085	.0058	.00001	.00022
%RSD	88.257	14.250	2.7434	6.7013	2.5378	3.7443	.12566	.03262	2.0046
#1	.00009	.00039	.00319	.06171	1.7202	.02331	4.6296	.04265	.01085
#2	.00040	.00032	.00332	.06785	1.6596	.02211	4.6378	.04267	.01117

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.7782	.00458	.01506	-.00147	64.922	.00077	.00363	1.2746	-.00029
Stddev	.0191	.00007	.00022	.00037	.086	.00048	.00147	.0213	.00082
%RSD	.50516	1.4473	1.4774	25.404	.13317	62.160	40.503	1.6725	277.16
#1	3.7917	.00454	.01522	-.00173	64.861	.00110	.00467	1.2897	-.00087
#2	3.7647	.00463	.01490	-.00120	64.983	.00043	.00259	1.2595	.00028

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.30899	.00158	.00349	.00095	-.01567	.00130	.01297	.00182
Stddev	.00017	.00090	.00004	.00048	.03801	.00072	.00033	.00207
%RSD	.05577	57.316	1.0937	50.665	242.50	55.733	2.5073	113.47
#1	.30887	.00094	.00346	.00129	.01120	.00079	.01320	.00036
#2	.30911	.00221	.00352	.00061	-.04255	.00181	.01274	.00328

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5947.0	83915.	5063.1
Stddev	3.9	47.	4.8
%RSD	.06513	.05618	.09570
#1	5949.8	83949.	5059.7
#2	5944.3	83882.	5066.6

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0026	49.501	-0.0107	.00780	-0.0034	.00004	1.0032	.01830	-0.00132	.00073	.00032	.01732	48.504
Stddev	.00015	.026	.00436	.00083	.00013	.00007	.0047	.00035	.00039	.00019	.00023	.00023	.010
%RSD	56.177	.05182	408.32	10.629	37.685	182.17	.46975	1.8909	29.442	25.651	69.765	1.3473	.01980

#1	-0.0037	49.482	.00201	.00838	-0.0042	-0.0001	.99984	.01854	-0.00105	.00060	.00016	.01748	48.510
#2	-0.0016	49.519	-.00415	.00721	-0.0025	.00008	1.0065	.01805	-0.00160	.00087	.00048	.01715	48.497

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.13657	.00571	.00139	.00148	-0.00187	259.58	.00181	.00498	-0.00080	4.9700	.01326	.00024	.00708
Stddev	.05326	.00018	.00285	.00008	.00018	.24	.00042	.00168	.00065	.0019	.00150	.00067	.00608
%RSD	39.001	3.0896	204.89	5.4499	9.6016	.09347	23.252	33.846	81.007	.03730	11.311	281.04	85.953

#1	-0.09890	.00558	-0.0062	.00143	-0.00200	259.41	.00211	.00617	-0.00034	4.9687	.01220	.00071	.01138
#2	-.17423	.00583	.00341	.00154	-0.00175	259.75	.00151	.00379	-0.00125	4.9713	.01432	-.00023	.00278

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00071	.00053	4.8243	.00194	-0.00000	9.8406	.00203	-0.00027	.20060
Stddev	.00007	.00003	.0035	.00017	.00003	.0198	.00048	.00040	.00078
%RSD	9.5135	5.4597	.07311	8.8640	708.21	.20161	23.806	148.89	.39062

#1	.00075	.00051	4.8218	.00182	-0.00002	9.8265	.00237	-0.00055	.20116
#2	.00066	.00056	4.8268	.00206	.00002	9.8546	.00169	.00001	.20005

Check ?	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5852.2	81411.	5008.2
Stddev	3.2	17.	2.2
%RSD	.05534	.02111	.04319

#1	5849.9	81399.	5006.7
#2	5854.5	81423.	5009.8

Sample Name: ccv-3330457 Acquired: 6/16/2015 2:46:50 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49284	.50662	.97285	.49807	.52558	.48704	-.05165	4.9323	.50422	.49982	.49620	.50068	2.3581
Stddev	.00060	.00181	.00334	.00090	.00025	.00017	.00077	.0075	.00001	.00036	.00016	.00071	.0048
%RSD	.12216	.35820	.34354	.18162	.04832	.03469	1.4979	.15170	.00295	.07242	.03148	.14095	.20170
#1	.49241	.50534	.97521	.49743	.52540	.48692	-.05220	4.9376	.50421	.50008	.49631	.50018	2.3548
#2	.49326	.50791	.97049	.49871	.52576	.48716	-.05111	4.9270	.50424	.49957	.49609	.50118	2.3615

Check ?	Chk Pass	None	Chk Pass										
Value Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.390	1.0601	19.585	.49607	.50021	5.2763	.50052	.98074	1.0125	.00218	.99445	.97501	4.8103
Stddev	.077	.0002	.011	.00013	.00078	.0089	.00058	.00169	.0028	.00573	.00206	.00420	.0103
%RSD	.15596	.01625	.05655	.02604	.15635	.16923	.11618	.17195	.27557	262.56	.20687	.43069	.21463
#1	49.335	1.0602	19.578	.49598	.49966	5.2700	.50011	.98194	1.0145	.00623	.99591	.97798	4.8030
#2	49.444	1.0599	19.593	.49616	.50077	5.2826	.50094	.97955	1.0105	-.00187	.99300	.97204	4.8176

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass								
Value Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.99185	.50776	.01838	.50383	1.0190	.00114	.48582	.49131	.48814
Stddev	.00185	.00035	.00115	.00074	.0007	.06839	.00040	.00011	.00001
%RSD	.18637	.06915	6.2508	.14591	.06781	5973.7	.08136	.02183	.00284
#1	.99055	.50751	.01756	.50331	1.0185	.04950	.48554	.49123	.48813
#2	.99316	.50801	.01919	.50435	1.0195	-.04722	.48610	.49138	.48815

Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5920.0	83117.	4957.5
Stddev	5.5	172.	8.6
%RSD	.09276	.20641	.17306
#1	5916.1	83238.	4963.5
#2	5923.8	82995.	4951.4

Sample Name: CCB Acquired: 6/16/2015 2:49:18 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0039	-0.0043	-0.0153	F .00440	-0.0056	.00015	.00178	.00938	-0.0004	-0.0018	-0.0002	-0.0003
Stddev	.00017	.00060	.00107	.00098	.00014	.00011	.00032	.00036	.00016	.00011	.00004	.00020
%RSD	42.407	138.71	69.746	22.222	25.231	75.901	17.750	3.8782	367.05	58.286	261.08	785.13

#1	-0.0051	-0.0085	-0.0077	.00509	-0.0066	.00007	.00155	.00912	-0.0016	-0.0026	.00001	.0001
#2	-0.0027	-0.0001	-0.0228	.00371	-0.0046	.00022	.00200	.00964	.00007	-0.0011	-0.0005	-0.0016

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.00312								
Low Limit				-.00312								

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0214	-0.4832	W .00361	.00200	-0.0002	.00115	.03774	.00026	.00258	-0.0095	.00490	-0.0071
Stddev	.00113	.00935	.00189	.00008	.00001	.00020	.01498	.00026	.00209	.00089	.00204	.00101
%RSD	52.617	19.361	52.473	4.2080	70.992	17.028	39.689	99.252	80.862	93.304	41.654	141.94

#1	-0.0294	-0.4170	.00495	.00206	-0.0001	.00101	.04834	.00008	.00406	-0.0032	.00346	-0.0142
#2	-0.0134	-0.05493	.00227	.00194	-0.0003	.00129	.02715	.00045	.00110	-0.0158	.00635	.00000

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	None	Chk Pass						
High Limit			.00261									
Low Limit			-.00261									

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00108	.01328	-0.0030	.00010	-0.0075	.00013	-0.00109	.01136	-0.0050	-0.00283	.00119
Stddev	.00663	.00217	.00028	.00004	.00006	.00006	.00080	.00841	.00000	.00001	.00052
%RSD	616.26	16.335	93.119	35.569	8.2493	46.472	72.916	74.037	.13654	.36933	43.524

#1	-0.00361	.01482	-0.0049	.00012	-0.0070	.00009	-0.00166	.01730	-0.0050	-0.00282	.00082
#2	.00576	.01175	-0.0010	.00007	-0.0079	.00018	-0.00053	.00541	-0.00050	-0.00283	.00156

Check ?	Chk Pass										
High Limit											
Low Limit											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6003.7	85090.	4962.6
Stddev	6.8	185.	2.6
%RSD	.11393	.21716	.05257

#1	5998.8	85221.	4960.7
#2	6008.5	84960.	4964.4

Sample Name: CCVL3330451 Acquired: 6/16/2015 2:52:00 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01043	.10935	.01445	.10387	.01062	.00105	W .12415	.21822	.00543	.01060	.01081	.01646
Stddev	.00021	.00042	.00143	.00045	.00027	.00000	.00186	.00223	.00019	.00023	.00017	.00014
%RSD	2.0579	.38068	9.8944	.42861	2.5009	.29935	1.5012	1.0239	3.4228	2.1429	1.5448	.82689

#1	.01059	.10964	.01546	.10356	.01043	.00106	.12283	.21980	.00556	.01043	.01069	.01656
#2	.01028	.10905	.01344	.10419	.01081	.00105	.12547	.21664	.00529	.01076	.01093	.01636

Check ?	Chk Pass	Chk Warn	Chk Pass									
Value							.10000					
Range							20.000%					

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09861	3.0886	F .01757	.22047	.01062	.02029	1.1332	.04307	2.9646	.00888	.00405	.00859
Stddev	.00249	.0584	.00283	.00255	.00001	.00020	.0010	.00011	.0043	.00089	.00339	.00207
%RSD	2.5213	1.8908	16.103	1.1563	.08222	.98320	.08993	.24903	.14360	10.015	83.722	24.058

#1	.10037	3.1298	.01557	.21867	.01063	.02043	1.1325	.04299	2.9616	.00825	.00646	.01006
#2	.09685	3.0473	.01957	.22227	.01061	.02015	1.1339	.04315	2.9676	.00951	.00165	.00713

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass						
Value			.01000									
Range			30.000%									

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01519	4.9856	.10423	.01072	.01512	.01046	.01529	F .08133	.00958	.02030	.01633
Stddev	.00072	.00851	.00073	.00014	.00137	.00055	.00050	.01615	.00042	.00068	.00048
%RSD	4.7342	1.7063	.70511	1.2630	9.0303	5.2598	3.2935	19.856	4.3541	3.3385	2.9615

#1	.01570	.50458	.10475	.01082	.01609	.01085	.01494	.09275	.00928	.01982	.01599
#2	.01468	.49255	.10371	.01063	.01416	.01008	.01565	.06991	.00987	.02078	.01667

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass						
Value								.06000			
Range								30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6042.1	85678.	4995.7
Stddev	12.3	23.	33.7
%RSD	.20280	.02689	.67524

#1	6050.8	85694.	4971.8
#2	6033.5	85662.	5019.5

Sample Name: 280-69919-G-1-D @2 Acquired: 6/16/2015 2:54:38 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 279820 200.7 FGD

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00143	59.764	.04768	5.8405	.29149	.00294	F -.04951	W 2045.8	.00104
Stddev	.00036	.244	.00806	.0002	.00210	.00004	.00213	18.4	.00012
%RSD	25.305	.40757	16.902	.00300	.71951	1.4747	4.2983	.89847	11.765

#1	.00168	59.936	.05338	5.8406	.29298	.00298	-.05102	2058.8	.00096
#2	.00117	59.591	.04198	5.8404	.29001	.00291	-.04801	2032.8	.00113

Check ?	Chk Pass	Chk Fail	Chk Warn	Chk Pass					
High Limit							100.00	500.00	
Low Limit							-.02000	-.05000	

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	271.441 {124}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05005	.16790	.21099	91.879	62.862	.15666	493.91	W 15.298	.01915
Stddev	.00016	.00034	.00011	.106	.285	.00052	1.31	.014	.00002
%RSD	.31472	.20108	.05390	.11572	.45373	.33088	.26579	.09320	.10539

#1	.05016	.16813	.21107	91.954	63.063	.15702	494.83	15.288	.01914
#2	.04994	.16766	.21091	91.804	62.660	.15629	492.98	15.308	.01917

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								10.000	
Low Limit								-.01000	

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	149.59	.18197	30.562	.04776	F 1858.9	.01849	.12064	39.067	.00230
Stddev	.79	.00037	.041	.00206	1.5	.00047	.00570	.238	.00028
%RSD	.53082	.20537	.13373	4.3114	.07804	2.5155	4.7212	.61025	11.962

#1	150.15	.18170	30.591	.04630	1860.0	.01817	.11661	39.236	.00211
#2	149.03	.18223	30.533	.04921	1857.9	.01882	.12466	38.899	.00250

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-.02000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.7918	.01698	.44131	F -.02223	F -.13902	.09432	.47701	.04732
Stddev	.0253	.00037	.00197	.00099	.00623	.00022	.00407	.00168
%RSD	.52803	2.1871	.44727	4.4570	4.4781	.22810	.85257	3.5559

#1	4.8097	.01672	.43991	-.02153	-.13462	.09417	.47988	.04613
#2	4.7739	.01725	.44270	-.02293	-.14342	.09447	.47413	.04851

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				20.000	50.000			
Low Limit				-.02000	-.10000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5505.4	78824.	5325.1
Stddev	10.4	163.	55.2
%RSD	.18913	.20667	1.0373

#1	5498.0	78709.	5286.0
#2	5512.7	78939.	5364.1

Sample Name: 280-69919-G-2-B @2 Acquired: 6/16/2015 2:57:43 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 279820 200.7 FGD

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00051	44.158	.04437	4.7380	.27694	.00245	F - .04404	W 2122.0	.00039
Stddev	.00011	.025	.00132	.0123	.00020	.00004	.00025	10.5	.00032
%RSD	20.834	.05703	2.9813	.25978	.07238	1.7581	.57746	.49414	82.034
#1	.00058	44.140	.04344	4.7293	.27708	.00242	-.04386	2114.6	.00016
#2	.00043	44.176	.04531	4.7467	.27680	.00248	-.04422	2129.4	.00061
Check ?	Chk Pass	Chk Fail	Chk Warn	Chk Pass					
High Limit							100.00	500.00	
Low Limit							-.02000	-.05000	

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	271.441 {124}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04037	.12805	.16756	73.996	50.580	.13335	436.18	W 11.993	.01592
Stddev	.00031	.00010	.00017	.232	.073	.00261	4.96	.046	.00003
%RSD	.77518	.08075	.09887	.31415	.14515	1.9582	1.1367	.38177	.16372
#1	.04015	.12813	.16768	74.161	50.528	.13150	439.68	12.026	.01590
#2	.04059	.12798	.16744	73.832	50.631	.13520	432.67	11.961	.01593
Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								10.000	
Low Limit								-.01000	

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	130.56	.14467	25.717	.03829	F 1866.2	.00899	.09537	48.954	.00115
Stddev	1.06	.00023	.030	.00039	.0	.00336	.00617	.235	.00086
%RSD	.81516	.15922	.11683	1.0247	.00075	37.442	6.4727	.48088	74.146
#1	131.31	.14483	25.695	.03801	1866.2	.00661	.09974	49.121	.00176
#2	129.80	.14451	25.738	.03857	1866.2	.01137	.09101	48.788	.00055
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-.02000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.0829	.01575	.39089	W -.01586	F -.14277	.07339	.29885	.03897
Stddev	.0016	.00236	.00023	.00014	.00561	.00043	.00146	.00134
%RSD	.03910	14.970	.05786	.85878	3.9304	.57982	.48728	3.4331
#1	4.0817	.01409	.39105	-.01596	-.13880	.07369	.29782	.03802
#2	4.0840	.01742	.39073	-.01576	-.14674	.07309	.29988	.03991
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				5.0000	50.000			
Low Limit				-.01000	-.10000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5578.9	78175.	5287.8
Stddev	55.9	493.	4.5
%RSD	1.0028	.63041	.08439
#1	5539.3	77826.	5284.7
#2	5618.4	78523.	5291.0

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0043	8.9878	.00962	1.1174	.05614	.00051	W - .01036	482.18	.00056
Stddev	.00024	.1361	.00069	.0299	.00084	.00009	.00004	3.90	.00018
%RSD	56.089	1.5140	7.1745	2.6767	1.4978	17.187	.37612	.80937	32.600

#1	-0.0060	8.8915	.01011	1.0963	.05554	.00045	-.01039	479.42	.00069
#2	-0.0026	9.0840	.00913	1.1386	.05673	.00057	-.01034	484.94	.00043

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass					
High Limit							3.0000		
Low Limit							-.01000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00945	.02878	.03766	15.236	9.9536	.02672	94.487	2.6301	.00338
Stddev	.00024	.00101	.00105	.202	.0530	.00065	.659	.0162	.00016
%RSD	2.5308	3.5187	2.7760	1.3248	.53250	2.4192	.69772	.61620	4.6707

#1	.00928	.02807	.03692	15.093	9.9162	.02627	94.021	2.6187	.00327
#2	.00962	.02950	.03839	15.378	9.9911	.02718	94.953	2.6416	.00350

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	27.068	.03391	5.6040	.00680	F 480.55	.00341	.01296	9.8832	-.00063
Stddev	.376	.00126	.1549	.00092	13.10	.00141	.00302	.1439	.00004
%RSD	1.3879	3.7010	2.7637	13.497	2.7263	41.302	23.265	1.4558	6.0695

#1	26.803	.03302	5.4945	.00615	471.29	.00241	.01083	9.7815	-.00066
#2	27.334	.03480	5.7135	.00745	489.82	.00440	.01509	9.9850	-.00060

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-.02000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.83546	.00471	.08258	-.00314	-.02018	.01575	.06249	.00819
Stddev	.01151	.00171	.00083	.00084	.00229	.00013	.00099	.00007
%RSD	1.3775	36.383	1.0091	26.789	11.345	.79478	1.5862	.81353

#1	.82733	.00350	.08199	-.00255	-.02180	.01566	.06179	.00823
#2	.84360	.00592	.08317	-.00374	-.01856	.01584	.06319	.00814

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5827.9	82433.	5185.6
Stddev	22.5	740.	33.3
%RSD	.38573	.89775	.64230

#1	5843.8	81910.	5209.1
#2	5812.0	82956.	5162.0

Sample Name: 69919-G-2-C MS @2 Acquired: 6/16/2015 3:03:28 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 279820 200.7 FGD

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02672	43.619	.54571	5.2069	.30355	.02505	.95450	W 2110.7	.05060
Stddev	.00012	.072	.00247	.0095	.00064	.00001	.00169	10.6	.00008
%RSD	.44550	.16563	.45246	.18316	.20949	.04981	.17698	.50238	.16544
#1	.02681	43.568	.54396	5.2001	.30400	.02504	.95330	2118.2	.05054
#2	.02664	43.670	.54746	5.2136	.30310	.02505	.95569	2103.2	.05066

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								500.00	
Low Limit								-.05000	

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	271.441 {124}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.25777	.21298	.27501	64.940	76.031	.68021	446.28	W 10.335	.50966
Stddev	.00038	.00092	.00017	.146	.153	.00093	5.51	.031	.00137
%RSD	.14742	.43361	.06117	.22495	.20168	.13685	1.2344	.30227	.26952
#1	.25803	.21363	.27513	64.836	75.923	.68087	442.39	10.313	.51063
#2	.25750	.21232	.27489	65.043	76.140	.67956	450.18	10.357	.50868

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								10.000	
Low Limit								-.01000	

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	157.15	.35711	27.844	.22810	F 1879.4	.24513	1.1544	44.372	.87098
Stddev	.12	.00048	.026	.00001	.5	.00012	.0018	.128	.00080
%RSD	.07466	.13551	.09242	.00513	.02810	.04852	.15572	.28750	.09236
#1	157.06	.35677	27.826	.22811	1879.8	.24521	1.1531	44.463	.87041
#2	157.23	.35746	27.862	.22810	1879.0	.24504	1.1556	44.282	.87155

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-.02000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.0073	.47124	.79863	.75157	.86135	.30400	.49683	.29016
Stddev	.0042	.00128	.00157	.00007	.05084	.00041	.00136	.00008
%RSD	.10429	.27199	.19618	.00944	5.9024	.13648	.27282	.02828
#1	4.0044	.47034	.79752	.75152	.82540	.30429	.49779	.29021
#2	4.0103	.47215	.79974	.75162	.89730	.30371	.49587	.29010

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5659.5	80648.	5488.9
Stddev	53.8	280.	2.6
%RSD	.94990	.34726	.04771
#1	5621.5	80450.	5490.7
#2	5697.5	80846.	5487.0

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02631	41.779	.54854	5.1907	.29436	.02492	.94724	W 2065.8	.05025
Stddev	.00038	.000	.00652	.0058	.00012	.00004	.00436	6.2	.00023
%RSD	1.4607	.00032	1.1878	.11248	.04102	.15109	.46040	.30126	.45781

#1	.02604	41.780	.54394	5.1866	.29445	.02494	.94416	2070.2	.05008
#2	.02658	41.779	.55315	5.1949	.29428	.02489	.95033	2061.4	.05041

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								500.00	
Low Limit								-.05000	

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	271.441 {124}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.25600	.21025	.27267	63.511	75.081	.66926	446.89	W 10.263	.50857
Stddev	.00022	.00012	.00015	.070	.195	.00091	2.89	.045	.00020
%RSD	.08523	.05862	.05625	.11001	.25923	.13610	.64757	.43945	.03909

#1	.25584	.21016	.27256	63.561	74.944	.66990	448.94	10.295	.50843
#2	.25615	.21034	.27277	63.462	75.219	.66861	444.85	10.231	.50871

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								10.000	
Low Limit								-.01000	

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	157.00	.35509	27.408	.22708	F 1871.7	.24393	1.1452	39.753	.87018
Stddev	.27	.00003	.005	.00025	.6	.00111	.0013	.004	.00044
%RSD	.17452	.00837	.01677	.11210	.03210	.45514	.11732	.01075	.05041

#1	157.19	.35511	27.405	.22726	1871.3	.24472	1.1462	39.756	.87049
#2	156.80	.35507	27.412	.22690	1872.1	.24315	1.1443	39.750	.86987

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-.02000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.8060	.47003	.78942	.74941	.80836	.29989	.49063	.29164
Stddev	.0048	.00099	.00016	.00111	.02311	.00023	.00028	.00710
%RSD	.12511	.21093	.02085	.14766	2.8583	.07548	.05610	2.4343

#1	3.8094	.47073	.78931	.74863	.79202	.30005	.49083	.29666
#2	3.8027	.46933	.78954	.75020	.82470	.29973	.49044	.28662

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5639.7	81469.	5610.1
Stddev	1.7	308.	18.5
%RSD	.02978	.37754	.32920

#1	5638.5	81252.	5597.1
#2	5640.9	81687.	5623.2

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04434	43.913	.22808	4.7797	.36627	.04325	F - .05188	W 2075.4	.04603
Stddev	.00023	.068	.00341	.0078	.00057	.00003	.00131	23.8	.00004
%RSD	.51701	.15481	1.4937	.16242	.15597	.06868	2.5336	1.1477	.08507

#1	.04450	43.865	.23049	4.7742	.36587	.04327	-.05281	2092.2	.04600
#2	.04417	43.961	.22567	4.7852	.36668	.04323	-.05095	2058.5	.04606

Check ?	Chk Pass	Chk Fail	Chk Warn	Chk Pass					
High Limit							100.00	500.00	
Low Limit							-.02000	-.05000	

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	271.441 {124}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.07963	.16848	.21107	72.774	68.245	.22880	434.95	W 11.578	.06039
Stddev	.00033	.00052	.00080	.196	.219	.00124	2.59	.030	.00027
%RSD	.41826	.30777	.37731	.26902	.32036	.53987	.59620	.26021	.44928

#1	.07940	.16811	.21163	72.635	68.091	.22793	436.79	11.599	.06058
#2	.07987	.16885	.21051	72.912	68.400	.22968	433.12	11.556	.06020

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								10.000	
Low Limit								-.01000	

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	147.24	.18191	27.307	.11127	F 1843.0	.09942	.28509	W 51.867	.08174
Stddev	.16	.00084	.039	.00285	.0	.00145	.00246	.081	.00177
%RSD	.10995	.46008	.14115	2.5574	.00064	1.4570	.86408	.15697	2.1671

#1	147.12	.18132	27.280	.11328	1843.0	.09839	.28684	51.924	.08300
#2	147.35	.18251	27.335	.10926	1842.9	.10044	.28335	51.809	.08049

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit					200.00			50.000	
Low Limit					-.02000			-.10000	

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.0738	.18316	.42488	.12265	.27857	.11498	.44959	.08832
Stddev	.0091	.00484	.00059	.00143	.00356	.00046	.00108	.00188
%RSD	.22244	2.6433	.13775	1.1648	1.2791	.40055	.23916	2.1326

#1	4.0674	.18659	.42446	.12164	.28109	.11530	.45035	.08965
#2	4.0802	.17974	.42529	.12366	.27605	.11465	.44883	.08699

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5713.6	82927.	5751.9
Stddev	20.8	213.	21.7
%RSD	.36406	.25625	.37787

#1	5698.9	82776.	5736.6
#2	5728.3	83077.	5767.3

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00068	48.625	-0.00135	.02277	-0.00029	.00001	1.0315	.06661	-0.00117	.00105	.00040	.01660	47.734
Stddev	.00019	.387	.00424	.00074	.00003	.00010	.0038	.01274	.00012	.00008	.00015	.00031	.283
%RSD	27.225	.79670	313.16	3.2372	11.222	1597.9	.36641	19.133	10.629	7.7089	38.276	1.8745	.59361

#1	-0.00081	48.351	-0.00435	.02329	-0.00031	.00008	1.0342	.07562	-0.00126	.00111	.00029	.01682	47.533
#2	-0.00055	48.899	.00164	.02225	-0.00027	-0.00006	1.0288	.05760	-0.00108	.00100	.00051	.01638	47.934

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.15602	.00549	.01124	.00160	-0.00158	257.81	.00178	.00713	-0.00198	5.3439	.01367	.00234	-0.00169
Stddev	.04711	.00119	.00245	.00003	.00002	1.73	.00004	.00074	.00092	.0459	.00288	.00065	.01788
%RSD	30.195	21.655	21.810	1.6908	1.0037	.67174	2.5198	10.303	46.212	.85801	21.092	27.723	1058.9

#1	.12271	.00634	.00950	.00162	-0.00157	256.58	.00174	.00661	-0.00133	5.3763	.01164	.00188	.01096
#2	.18933	.00465	.01297	.00158	-0.00159	259.03	.00181	.00765	-0.00263	5.3115	.01571	.00280	-.01433

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00012	.00055	4.8050	.00244	-0.00012	9.7630	.00176	-0.00103	.20010
Stddev	.00027	.00007	.0054	.00013	.00070	.0085	.00009	.00029	.00357
%RSD	233.49	13.440	.11240	5.2762	601.29	.08721	5.3988	28.058	1.7821

#1	.00031	.00060	4.8089	.00253	-0.00061	9.7690	.00169	-0.00083	.19758
#2	-0.00008	.00049	4.8012	.00235	.00038	9.7569	.00182	-0.00123	.20263

Check ?	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6221.8	88120.	5594.7
Stddev	14.3	193.	23.8
%RSD	.22987	.21872	.42540

#1	6231.9	88256.	5611.6
#2	6211.6	87983.	5577.9

Sample Name: ccv-3330457 Acquired: 6/16/2015 3:15:09 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49975	.50233	.99597	.52015	.52380	.48650	-.05042	4.9133	.51018	.50365	.49920	.51090	2.3340
Stddev	.00016	.00169	.00242	.00102	.00024	.00068	.00190	.0088	.00034	.00054	.00006	.00029	.0029
%RSD	.03172	.33638	.24309	.19591	.04589	.14066	3.7650	.17920	.06711	.10712	.01149	.05701	.12237
#1	.49986	.50114	.99426	.51943	.52363	.48699	-.04908	4.9195	.50994	.50403	.49924	.51111	2.3320
#2	.49964	.50353	.99769	.52087	.52397	.48602	-.05176	4.9071	.51042	.50327	.49916	.51070	2.3360

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.642	1.0566	19.402	.49389	.50469	5.2348	.50483	1.0000	1.0141	.19385	1.0258	1.0059	4.7981
Stddev	.098	.0005	.025	.00002	.00023	.0055	.00166	.0005	.0005	.00709	.0012	.0014	.0416
%RSD	.19676	.05132	.13098	.00412	.04547	.10577	.32888	.05054	.04900	3.6581	.11304	.14310	.86654
#1	49.573	1.0570	19.420	.49391	.50485	5.2388	.50600	1.0004	1.0144	.19887	1.0250	1.0049	4.8275
#2	49.711	1.0562	19.384	.49388	.50452	5.2309	.50365	.99966	1.0137	.18884	1.0266	1.0069	4.7687

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass								
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0001	.51321	.02000	.50297	1.0300	-.02690	.48648	.48190	.49695
Stddev	.0019	.00044	.00014	.00108	.0007	.02219	.00075	.00062	.00111
%RSD	.18898	.08670	.71035	.21440	.06745	82.495	.15322	.12830	.22425
#1	1.0015	.51352	.01990	.50373	1.0305	-.01121	.48700	.48233	.49616
#2	.99880	.51289	.02010	.50221	1.0295	-.04259	.48595	.48146	.49774

Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6392.0	90646.	5599.6
Stddev	1.8	5.	2.7
%RSD	.02837	.00536	.04791
#1	6390.7	90643.	5597.7
#2	6393.3	90650.	5601.5

Sample Name: CCB Acquired: 6/16/2015 3:17:36 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0037	-0.0118	-0.0022	F .01246	W -0.0077	-0.0000	.00149	.02363	.00004	-0.0010	.00011
Stddev	.00010	.00002	.00135	.00047	.00026	.00004	.00055	.00190	.00015	.00001	.00010
%RSD	27.225	1.3254	602.90	3.7437	33.995	4197.6	36.934	8.0507	403.82	6.8214	87.555

#1	-0.00030	-0.00119	.00073	.01279	-0.00095	.00003	.00187	.02497	.00015	-0.00011	.00018
#2	-0.00045	-0.00117	-0.00117	.01213	-0.00058	-0.00003	.00110	.02228	-0.00007	-0.00010	.00004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Warn	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.00312	.00058						
Low Limit				-.00312	-.00058						

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00092	.00089	.04096	.00243	.00467	.00008	.00097	.06304	.00016	.00255	-0.00184
Stddev	.00023	.00257	.02466	.00029	.00003	.00009	.00021	.00225	.00008	.00091	.00099
%RSD	25.551	287.91	60.220	11.805	.62625	120.24	21.607	3.5728	48.039	35.482	53.702

#1	.00075	-0.00093	.05840	.00223	.00469	.00014	.00082	.06463	.00011	.00320	-0.00114
#2	.00108	.00271	.02352	.00264	.00465	.00001	.00111	.06144	.00022	.00191	-0.00254
Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.19427	.00009	.00277	-0.01484	-0.00034	.00005	.00090	.00016	-0.00091	-0.01236	-0.00082
Stddev	.00285	.00057	.00252	.00670	.00007	.00004	.00052	.00030	.00051	.00073	.00001
%RSD	1.4671	635.34	90.871	45.156	19.742	73.050	57.344	181.27	56.309	5.9269	1.1821

#1	.19629	-0.00032	.00099	-0.01010	-0.00039	.00008	.00127	-0.00005	-0.00127	-0.01184	-0.00083
#2	.19226	.00050	.00455	-0.01958	-0.00030	.00003	.00054	.00037	-0.00055	-0.01288	-0.00081
Check ?	None	Chk Pass									
High Limit											
Low Limit											

Elem	Zn2062	Zr3391
Units	ppm	ppm
Avg	-0.00300	.00183
Stddev	.00004	.00210
%RSD	1.1860	114.50
#1	-0.00297	.00331
#2	-0.00302	.00035

Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6503.0	93598.	5574.0
Stddev	15.4	50.	6.6
%RSD	.23694	.05372	.11775
#1	6492.1	93563.	5578.7
#2	6513.9	93634.	5569.4

Sample Name: CCVL3330451 Acquired: 6/16/2015 3:20:17 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01102	.10799	.01635	.11325	.01048	.00113	W .12664	.22711	.00562	.01049	.01063	.01738
Stddev	.00007	.00064	.00079	.00037	.00019	.00010	.00023	.00227	.00004	.00009	.00006	.00023
%RSD	.67097	.59136	4.8140	.32545	1.8354	8.7577	.18169	.99906	.72327	.84727	.57594	1.3071

#1	.01097	.10844	.01690	.11352	.01034	.00106	.12680	.22871	.00565	.01055	.01068	.01722
#2	.01108	.10754	.01579	.11299	.01061	.00120	.12647	.22550	.00559	.01042	.01059	.01754

Check ?	Chk Pass	Chk Warn	Chk Pass									
Value							.10000					
Range							20.000%					

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.11201	3.1105	F .01403	.21760	.01064	.02075	1.1556	.04344	3.0409	.00892	.17102	.00942
Stddev	.00207	.0408	.00278	.00048	.00010	.00030	.0094	.00046	.0149	.00007	.00486	.00032
%RSD	1.8443	1.3123	19.810	.22106	.92891	1.4352	.81621	1.0556	.49023	.76452	2.8429	3.4317

#1	.11347	3.1393	.01600	.21794	.01057	.02096	1.1623	.04311	3.0304	.00887	.17446	.00965
#2	.11055	3.0816	.01207	.21726	.01071	.02054	1.1489	.04376	3.0515	.00897	.16758	.00919

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass						
Value			.01000									
Range			30.000%									

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01625	48717	.10537	.01085	.01724	.01043	.01511	F .02770	.00926	.01928	W .01821
Stddev	.00122	.01187	.00004	.00010	.00029	.00035	.00140	.02144	.00008	.00023	.00088
%RSD	7.5172	2.4367	.04183	.95263	1.6610	3.3231	9.2800	77.417	.90284	1.2053	4.8335

#1	.01539	.47878	.10540	.01092	.01745	.01018	.01412	.01253	.00920	.01911	.01759
#2	.01711	.49557	.10534	.01078	.01704	.01067	.01610	.04286	.00932	.01944	.01884

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Warn							
Value								.06000			.01500	
Range								-30.000%			20.000%	

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6563.3	94498.	5660.8
Stddev	20.3	14.	12.3
%RSD	.30866	.01465	.21720

#1	6548.9	94508.	5669.5
#2	6577.6	94489.	5652.1

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00095	43.053	.05064	5.5262	.28792	.00220	F - .08951	W 2194.3	-0.0007
Stddev	.00013	.019	.00238	.0053	.00027	.00008	.00010	26.0	.00005
%RSD	13.305	.04395	4.6946	.09639	.09467	3.5419	.10665	1.1861	68.686

#1	.00104	43.040	.04896	5.5224	.28773	.00215	-.08944	2175.9	-.00011
#2	.00086	43.067	.05232	5.5300	.28811	.00226	-.08958	2212.7	-.00004

Check ?	Chk Pass	Chk Fail	Chk Warn	Chk Pass					
High Limit							100.00	500.00	
Low Limit							-.02000	-.05000	

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	271.441 {124}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04624	.16064	.28109	109.70	49.826	.14379	480.67	W 12.051	.02001
Stddev	.00013	.00025	.00069	.03	.072	.00118	.79	.041	.00038
%RSD	.28368	.15363	.24615	.02852	.14374	.81904	.16380	.34385	1.9195

#1	.04615	.16082	.28060	109.72	49.877	.14296	481.22	12.022	.01974
#2	.04634	.16047	.28158	109.68	49.776	.14462	480.11	12.081	.02029

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								10.000	
Low Limit								-.01000	

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	145.71	.16109	27.268	.04251	F 1796.1	.01198	.11434	W 52.690	.00395
Stddev	.55	.00039	.026	.00183	.8	.00130	.00372	.201	.00077
%RSD	.37483	.24223	.09705	4.3163	.04652	10.864	3.2493	.38145	19.476

#1	145.33	.16137	27.250	.04381	1795.5	.01106	.11171	52.832	.00341
#2	146.10	.16082	27.287	.04121	1796.7	.01290	.11696	52.547	.00450

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit					200.00			50.000	
Low Limit					-.02000			-.10000	

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.3797	.01545	.87409	W -.01787	F -.11128	.08759	.30960	.05216
Stddev	.0017	.00031	.00091	.00093	.01256	.00041	.00047	.00030
%RSD	.03766	2.0289	.10445	5.2276	11.285	.46459	.15078	.57239

#1	4.3809	.01523	.87345	-.01721	-.10240	.08788	.30927	.05195
#2	4.3785	.01567	.87474	-.01854	-.12016	.08730	.30993	.05237

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				5.0000	50.000			
Low Limit				-.01000	-.10000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5668.2	82176.	5816.4
Stddev	5.4	77.	27.4
%RSD	.09610	.09404	.47107

#1	5672.0	82230.	5835.8
#2	5664.3	82121.	5797.1

Sample Name: 280-69919-G-4-B @2 Acquired: 6/16/2015 3:26:00 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 279820 200.7 FGD

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00053	39.006	.03567	5.7892	.22610	.00206	F -.03849	W 1982.9	-0.0000
Stddev	.00061	.040	.00176	.0016	.00144	.00009	.00482	20.2	.00023
%RSD	114.00	.10325	4.9469	.02784	.63745	4.4134	12.518	1.0192	4907.8
#1	.00010	38.977	.03692	5.7903	.22508	.00200	-.04190	1997.1	.00016
#2	.00096	39.034	.03443	5.7881	.22712	.00213	-.03509	1968.6	-.00017
Check ?	Chk Pass	Chk Fail	Chk Warn	Chk Pass					
High Limit							100.00	500.00	
Low Limit							-.02000	-.05000	

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	271.441 {124}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03145	.12091	.14297	64.538	54.809	.14649	W 506.78	9.3552	.01198
Stddev	.00034	.00014	.00045	.011	.143	.00103	.25	.0008	.00022
%RSD	1.0902	.11771	.31247	.01659	.26004	.70415	.04941	.00804	1.8184
#1	.03121	.12081	.14266	64.546	54.708	.14576	506.60	9.3547	.01213
#2	.03170	.12101	.14329	64.531	54.910	.14722	506.95	9.3558	.01182
Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass					
High Limit							500.00		
Low Limit							-.10000		

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	154.75	.13387	25.239	.03002	F 1908.6	.00849	.16486	49.586	.00033
Stddev	.58	.00043	.021	.00048	.3	.00085	.00174	.032	.00001
%RSD	.37428	.31837	.08231	1.6137	.01508	10.028	1.0569	.06513	2.0233
#1	154.34	.13418	25.225	.03036	1908.4	.00788	.16609	49.609	.00032
#2	155.16	.13357	25.254	.02967	1908.8	.00909	.16362	49.563	.00033
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-.02000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.0669	.01307	.28860	W -.01245	F -.10495	.06249	.25711	.03279
Stddev	.0089	.00054	.00028	.00020	.02067	.00102	.00102	.00190
%RSD	.29087	4.1635	.09734	1.6362	19.693	1.6374	.39811	5.7805
#1	3.0606	.01345	.28840	-.01259	-.09033	.06322	.25783	.03145
#2	3.0732	.01268	.28880	-.01230	-.11956	.06177	.25639	.03413
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				5.0000	50.000			
Low Limit				-.01000	-.10000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5773.3	84084.	5795.6
Stddev	3.4	37.	2.7
%RSD	.05892	.04444	.04593
#1	5775.8	84110.	5797.5
#2	5770.9	84057.	5793.8

Sample Name: 280-69919-G-5-B @2 Acquired: 6/16/2015 3:29:07 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 279820 200.7 FGD

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k -.00189	- .00666	k .00159	2.0210	.61864	k -.00019	k -.00958	^ *****	kW -.00733
Stddev	.00042	.00025	.00582	.0014	.00140	.00004	.00608	----	.00037
%RSD	22.404	3.7834	365.80	.06833	.22591	21.206	63.437	----	5.0909
#1	k -.00159	-.00684	-.00252	2.0220	.61963	k -.00022	k -.01387	^ ----	-.00759
#2	k -.00219	-.00648	k .00570	2.0200	.61765	k -.00016	k -.00528	^ ----	k -.00707
Check ?	Chk Pass	Chk Warn							
High Limit									2.0000
Low Limit									-.00500

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .00859	k -.00002	k .00394	.00884	21.319	k .13372	186.85	2.3700	.01643
Stddev	.00012	.00001	.00042	.00044	.018	.00010	.19	.0003	.00007
%RSD	1.3863	24.796	10.660	4.9550	.08598	.07823	.10095	.01118	.41704
#1	k .00867	k -.00002	k .00424	.00853	21.332	k .13380	186.71	2.3702	.01639
#2	k .00850	k -.00003	k .00364	.00915	21.306	k .13365	186.98	2.3698	.01648
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	69.778	.02309	.03045	k .00082	161.80	k .01874	k -.00067	3.3403	k -.00408
Stddev	.259	.00085	.00086	.00336	.18	.00356	.00334	.0204	.00056
%RSD	.37120	3.6988	2.8139	407.01	.11012	18.984	497.93	.61217	13.709
#1	69.595	.02369	.02984	k .00320	161.67	k .02126	k -.00303	3.3548	k -.00447
#2	69.961	.02249	.03105	k -.00155	161.92	k .01623	k .00169	3.3258	k -.00368
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.5952	k .00273	k .05299	k .00058	kF -.31814	k .00058	k .00148	k .00370
Stddev	.0001	.00235	.00034	.00017	.03375	.00064	.00050	.00170
%RSD	.00090	86.278	.64973	29.610	10.608	110.45	33.828	45.914
#1	5.5952	k .00106	k .05274	k .00070	k -.29428	k .00013	k .00113	k .00250
#2	5.5952	k .00439	k .05323	k .00046	k -.34201	k .00103	k .00184	k .00490
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit					50.000			
Low Limit					-.10000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	4615.4	66807.	4888.8
Stddev	1.1	38.	.5
%RSD	.02404	.05720	.01008
#1	4616.2	66780.	4889.1
#2	4614.7	66834.	4888.4

Sample Name: 280-69919-F-6-B @2 Acquired: 6/16/2015 3:31:47 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 279820 200.7 FGD

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00009	.03397	-.00245	.03575	.01420	.00005	-.00091	3.9487	.00024
Stddev	.00027	.00059	.00262	.00055	.00018	.00001	.00180	.0118	.00006
%RSD	287.83	1.7506	107.14	1.5437	1.2483	12.761	197.93	.29967	24.095

#1	-.00010	.03355	-.00430	.03614	.01407	.00005	-.00219	3.9571	.00028
#2	.00029	.03439	-.00059	.03536	.01432	.00005	.00036	3.9404	.00020

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00052	.00025	.00176	.17630	1.5721	.00241	1.0719	.02495	.00015
Stddev	.00009	.00022	.00026	.00075	.0633	.00100	.0029	.00012	.00021
%RSD	17.928	88.403	14.805	.42706	4.0267	41.465	.27114	.47160	133.67

#1	-.00059	.00041	.00195	.17684	1.6168	.00170	1.0739	.02504	.00030
#2	-.00046	.00010	.00158	.17577	1.5273	.00311	1.0698	.02487	.00001

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.7042	.00040	.00681	-.00052	1.7536	-.00177	-.00191	2.0502	.00014
Stddev	.0168	.00007	.00325	.00005	.0004	.00077	.00339	.0136	.00059
%RSD	.35607	17.929	47.718	8.6842	.02269	43.558	177.76	.66342	408.50

#1	4.7160	.00035	.00911	-.00055	1.7539	-.00232	-.00431	2.0598	.00056
#2	4.6923	.00045	.00451	-.00049	1.7533	-.00123	.00049	2.0406	-.00027

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02926	.00138	.00131	-.00107	-.00760	-.00063	-.00203	.00306
Stddev	.00001	.00008	.00015	.00068	.04461	.00032	.00014	.00064
%RSD	.02254	6.0238	11.782	64.001	586.79	51.302	6.8043	20.786

#1	.02926	.00133	.00142	-.00155	.02394	-.00040	-.00193	.00261
#2	.02925	.00144	.00120	-.00058	-.03915	-.00086	-.00212	.00352

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6444.4	93145.	5585.9
Stddev	3.3	249.	7.6
%RSD	.05050	.26744	.13655

#1	6446.7	92969.	5580.5
#2	6442.1	93321.	5591.2

Sample Name: 280-69919-F-7-B @2 Acquired: 6/16/2015 3:34:27 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 279820 200.7 FGD

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00006	-.01039	.00369	3.9726	.02154	.00013	-.00379	299.76	.00101
Stddev	.00019	.00121	.00148	.0004	.00029	.00005	.00114	.54	.00007
%RSD	308.76	11.602	40.244	.00969	1.3590	40.431	30.067	.17951	6.7673

#1	.00019	-.00953	.00474	3.9724	.02175	.00009	-.00460	300.14	.00096
#2	-.00007	-.01124	.00264	3.9729	.02134	.00017	-.00298	299.38	.00106

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00036	.01661	.00637	.00443	29.164	.05898	350.11	.02503	.00322
Stddev	.00021	.00003	.00074	.00078	.115	.00051	.60	.00010	.00014
%RSD	57.580	.15684	11.578	17.705	.39315	.85704	.17270	.41934	4.3470

#1	-.00051	.01662	.00585	.00498	29.083	.05863	350.54	.02495	.00331
#2	-.00021	.01659	.00689	.00388	29.245	.05934	349.68	.02510	.00312

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	105.40	.00363	.01071	-.00285	F 603.52	.00018	.06199	13.765	-.00077
Stddev	.21	.00054	.00016	.00154	.05	.00147	.00374	.067	.00022
%RSD	.19457	14.814	1.4730	54.268	.00908	828.19	6.0363	.48356	28.467

#1	105.25	.00401	.01060	-.00394	603.56	.00121	.05935	13.812	-.00061
#2	105.54	.00325	.01082	-.00175	603.48	-.00086	.06464	13.718	-.00092

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-.02000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.78966	.00345	.00023	.00053	-.02084	.00107	.00426	.00103
Stddev	.00110	.00089	.00031	.00041	.01348	.00029	.00023	.00219
%RSD	.13946	25.674	139.03	76.932	64.686	26.913	5.3296	212.57

#1	.78888	.00408	.00000	.00024	-.01131	.00128	.00410	.00258
#2	.79043	.00283	.00045	.00082	-.03037	.00087	.00442	-.00052

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5722.8	83278.	5392.6
Stddev	4.8	131.	9.1
%RSD	.08447	.15724	.16792

#1	5726.2	83185.	5386.2
#2	5719.4	83370.	5399.0

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0068	48.709	-0.0076	.01973	-0.0020	.00004	1.0402	.04688	-0.0123	.00086	.00030	.01704	47.532
Stddev	.00069	.176	.00132	.00034	.00007	.00004	.0021	.00127	.00000	.00045	.00032	.00066	.089
%RSD	101.74	.36233	173.41	1.7031	32.921	99.843	.20046	2.7013	.30968	52.951	105.87	3.8848	.18724

#1	-0.0019	48.834	.00017	.01997	-0.0016	.00001	1.0388	.04598	-0.0123	.00054	.00052	.01657	47.595
#2	-0.0117	48.584	-0.0170	.01949	-0.0025	.00007	1.0417	.04777	-0.0123	.00118	.00008	.01750	47.469

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.14282	.00319	.00697	.00148	-0.00207	260.19	.00193	.00619	-0.00139	5.2526	.01439	.00531	.00342
Stddev	.05351	.00000	.00099	.00007	.00020	.60	.00003	.00053	.00046	.0083	.00129	.00342	.00892
%RSD	37.468	.04679	14.179	4.5818	9.7844	.22983	1.7292	8.5648	33.230	.15806	8.9968	64.411	260.94

#1	.10498	.00319	.00627	.00143	-0.0193	260.61	.00196	.00657	-0.0172	5.2467	.01531	.00773	.00973
#2	.18066	.00319	.00767	.00153	-0.0222	259.77	.00191	.00582	-0.0106	5.2584	.01348	.00289	-0.0289

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0022	.00051	4.8323	.00274	-0.00121	9.8046	.00074	-0.00083	.20028
Stddev	.00055	.00003	.0039	.00031	.00096	.0329	.00073	.00039	.00260
%RSD	251.74	5.4640	.07984	11.251	79.278	.33544	97.602	47.368	1.2971

#1	-0.0060	.00053	4.8351	.00253	-0.0188	9.7814	.00126	-0.0110	.19844
#2	.00017	.00049	4.8296	.00296	-0.0053	9.8279	.00023	-0.0055	.20212

Check ?	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6206.8	87915.	5552.4
Stddev	5.7	12.	17.5
%RSD	.09174	.01321	.31590

#1	6202.8	87923.	5540.0
#2	6210.8	87907.	5564.8

Sample Name: ccv-3330457 Acquired: 6/16/2015 3:39:50 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49912	.50274	1.0007	.51908	.52733	.48341	-.04928	4.9128	.50784	.50742	.50164	.51354	2.3256
Stddev	.00114	.00142	.0003	.00048	.00048	.00133	.00016	.0126	.00051	.00025	.00037	.00223	.0033
%RSD	.22805	.28239	.03070	.09311	.09156	.27584	.32069	.25704	.10100	.04944	.07390	.43437	.14357

#1	.49992	.50173	1.0005	.51942	.52767	.48435	-.04939	4.9217	.50748	.50724	.50138	.51511	2.3280
#2	.49831	.50374	1.0009	.51873	.52699	.48247	-.04916	4.9039	.50821	.50760	.50190	.51196	2.3233

Check ?	Chk Pass	None	Chk Pass										
Value Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.931	1.0611	19.153	.49089	.50791	5.2648	.50757	1.0064	1.0141	.09833	1.0298	1.0075	4.7557
Stddev	.148	.0006	.037	.00019	.00096	.0275	.00091	.0004	.0008	.00022	.0009	.0068	.0366
%RSD	.29694	.05627	.19088	.03869	.18923	.52171	.17926	.03432	.07402	.22573	.09141	.67477	.76879

#1	50.036	1.0616	19.179	.49102	.50859	5.2842	.50821	1.0067	1.0146	.09849	1.0305	1.0123	4.7298
#2	49.826	1.0607	19.127	.49075	.50723	5.2454	.50693	1.0062	1.0136	.09818	1.0291	1.0027	4.7815

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass								
Value Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0021	.51796	.01903	.50157	1.0280	-.00594	.48256	.47515	.49810
Stddev	.0005	.00108	.00122	.00022	.0004	.01592	.00060	.00174	.00073
%RSD	.04724	.20921	6.4341	.04329	.04232	268.09	.12372	.36542	.14677

#1	1.0024	.51873	.01990	.50141	1.0277	-.01720	.48298	.47638	.49758
#2	1.0017	.51720	.01817	.50172	1.0284	.00532	.48213	.47392	.49861

Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6347.8	90832.	5538.3
Stddev	12.9	61.	30.6
%RSD	.20386	.06721	.55225

#1	6338.7	90875.	5516.7
#2	6357.0	90789.	5559.9

Sample Name: CCB Acquired: 6/16/2015 3:42:16 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00016	-.00126	-.00110	F .01068	-.00054	.00011	-.00310	.02617	.00006	-.00028	.00011	.00034
Stddev	.00055	.00040	.00222	.00019	.00029	.00003	.00072	.00085	.00010	.00000	.00015	.00059
%RSD	341.24	31.766	200.92	1.7851	53.310	24.461	23.316	3.2617	160.57	1.1588	130.61	172.72

#1	-.00023	-.00098	.00046	.01081	-.00034	.00013	-.00362	.02557	.00013	-.00028	.00001	-.00008
#2	.00055	-.00154	-.00267	.01054	-.00074	.00009	-.00259	.02678	-.00001	-.00027	.00022	.00075

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.00312								
Low Limit				-.00312								

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00399	.06698	W .00272	.00563	.00001	.00104	.08198	.00054	.00296	-.00130	.11578	.00013
Stddev	.00200	.04697	.00002	.00006	.00009	.00004	.00340	.00029	.00068	.00017	.00059	.00156
%RSD	50.273	70.133	.88051	1.0327	610.50	3.4065	4.1448	53.523	22.861	13.422	.51349	1220.8

#1	-.00540	.10019	.00274	.00559	.00008	.00102	.08439	.00033	.00248	-.00118	.11536	.00123
#2	-.00257	.03376	.00270	.00567	-.00005	.00107	.07958	.00074	.00343	-.00142	.11620	-.00097

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	None	Chk Pass						
High Limit			.00261									
Low Limit			-.00261									

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00026	.00513	-.00004	.00003	.00135	.00021	-.00046	F -.05555	-.00074	-.00294	.00182
Stddev	.00170	.00281	.00026	.00017	.00091	.00010	.00033	.01720	.00017	.00025	.00041
%RSD	642.95	54.731	716.49	553.35	67.459	46.051	70.151	30.962	22.748	8.5879	22.451

#1	.00146	.00712	.00015	-.00009	.00071	.00027	-.00070	-.04339	-.00062	-.00312	.00153
#2	-.00094	.00315	-.00022	.00015	.00200	.00014	-.00023	-.06772	-.00086	-.00276	.00211

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass						
High Limit								.05000			
Low Limit								-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6473.6	93709.	5553.4
Stddev	13.5	218.	4.6
%RSD	.20796	.23279	.08256

#1	6483.1	93555.	5550.1
#2	6464.1	93863.	5556.6

Sample Name: CCVL3330451 Acquired: 6/16/2015 3:44:58 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01048	.10921	.01366	.11235	.01038	.00105	W .12824	.23005	.00542	.01064	.01061	.01700
Stddev	.00066	.00002	.00343	.00076	.00023	.00004	.00348	.00135	.00000	.00025	.00017	.00022
%RSD	6.2517	.01472	25.083	.67814	2.2146	4.1867	2.7099	.58530	.02649	2.3942	1.5958	1.2660

#1	.01002	.10922	.01124	.11289	.01021	.00108	.12578	.23100	.00542	.01046	.01049	.01715
#2	.01094	.10920	.01608	.11182	.01054	.00102	.13069	.22909	.00542	.01082	.01073	.01684

Check ?	Chk Pass	Chk Warn	Chk Pass									
Value							.10000					
Range							20.000%					

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09365	3.1716	F .01461	.21607	.01050	.02073	1.1867	.04318	3.0413	.00735	.10785	.00849
Stddev	.00271	.0290	.00023	.00016	.00008	.00000	.0078	.00024	.0020	.00109	.00421	.00097
%RSD	2.8895	.91574	1.5947	.07593	.80737	.00653	.65673	.56534	.06577	14.804	3.9052	11.480

#1	.09174	3.1922	.01445	.21595	.01044	.02073	1.1812	.04336	3.0399	.00658	.11083	.00918
#2	.09557	3.1511	.01478	.21618	.01056	.02073	1.1923	.04301	3.0427	.00812	.10487	.00780

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass						
Value			.01000									
Range			30.000%									

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01305	4.7841	.10503	.01089	.01627	.01048	.01648	.06405	.00924	.01918	W .01894
Stddev	.00047	.00600	.00060	.00008	.00075	.00048	.00068	.01125	.00002	.00025	.00296
%RSD	3.6026	1.2540	.57394	.73681	4.5906	4.5601	4.1554	17.571	.21269	1.2782	15.648

#1	.01272	.47416	.10546	.01084	.01679	.01082	.01697	.05609	.00923	.01900	.01684
#2	.01338	.48265	.10461	.01095	.01574	.01015	.01600	.07201	.00925	.01935	.02104

Check ?	Chk Pass	Chk Warn	Chk Pass									
Value											.01500	
Range											20.000%	

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6524.6	94109.	5638.6
Stddev	5.0	224.	8.3
%RSD	.07726	.23821	.14673

#1	6528.2	94268.	5632.7
#2	6521.1	93951.	5644.4

Sample Name: 280-70350-G-4-B @2 Acquired: 6/16/2015 3:47:35 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 281097 200.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00032	.00952	.00463	9.9899	.01644	.00016	-.00027	197.03	.00006
Stddev	.00045	.00075	.00174	.0062	.00006	.00005	.00159	.25	.00000
%RSD	141.13	7.8899	37.618	.06194	.39185	28.380	596.81	.12600	6.1539

#1	.00000	.01005	.00340	9.9856	.01648	.00019	-.00139	196.86	.00006
#2	.00063	.00899	.00587	9.9943	.01639	.00013	.00086	197.21	.00006

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00028	.00098	.00297	.01416	2.0255	.00777	28.612	.00039	.00804
Stddev	.00006	.00017	.00017	.00275	.0020	.00001	.006	.00004	.00004
%RSD	20.466	17.129	5.7115	19.456	.10022	.18425	.02065	9.5033	.50914

#1	-.00032	.00086	.00285	.01221	2.0269	.00778	28.616	.00041	.00801
#2	-.00024	.00110	.00309	.01611	2.0240	.00776	28.608	.00036	.00807

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.595	.00388	.00510	-.00158	W 191.69	.00179	.25462	2.5757	-.00020
Stddev	.079	.00029	.00022	.00135	.14	.00056	.00459	.0317	.00047
%RSD	.62471	7.6095	4.3550	85.276	.07310	31.285	1.8018	1.2299	241.12

#1	12.651	.00367	.00525	-.00253	191.60	.00219	.25138	2.5533	.00014
#2	12.540	.00409	.00494	-.00063	191.79	.00140	.25787	2.5981	-.00053

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					190.00				
Low Limit					-.01000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.38423	.00024	.00003	.00015	-.00661	.00089	-.00014	.00498
Stddev	.00056	.00104	.00011	.00117	.00251	.00003	.00055	.00009
%RSD	.14574	439.54	386.41	804.76	38.048	3.3451	388.90	1.7722

#1	.38384	.00098	-.00005	-.00068	-.00839	.00091	-.00053	.00492
#2	.38463	-.00050	.00011	.00097	-.00483	.00086	.00025	.00504

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6160.0	88616.	5535.0
Stddev	8.4	.	12.4
%RSD	.13648	.00027	.22442

#1	6166.0	88617.	5543.8
#2	6154.1	88616.	5526.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00014	.01146	.00165	F .02363	-.00022	.00010	.00029	.07807	.00023
Stddev	.00007	.00032	.00102	.00162	.00021	.00004	.00179	.00027	.00002
%RSD	50.243	2.7712	62.130	6.8412	96.523	42.429	622.45	.34311	8.6914

#1	-.00009	.01169	.00092	.02477	-.00007	.00013	-.00098	.07825	.00021
#2	-.00019	.01124	.00237	.02249	-.00037	.00007	.00156	.07788	.00024

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass				
High Limit				.01000					
Low Limit				-.01000					

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00039	.00028	.00098	F .11744	-.05036	.00240	.00657	.00095	.00003
Stddev	.00011	.00013	.00029	.00442	.02850	.00086	.00129	.00005	.00018
%RSD	29.617	45.159	29.829	3.7597	56.598	35.742	19.708	5.0235	605.47

#1	-.00030	.00019	.00118	.12056	-.03020	.00179	.00565	.00098	.00016
#2	-.00047	.00037	.00077	.11432	-.07051	.00300	.00748	.00091	-.00010

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass				
High Limit				.10000					
Low Limit				-.10000					

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08034	.00038	.00171	-.00160	F .11424	-.00158	-.00066	-.00724	-.00011
Stddev	.00041	.00009	.00126	.00179	.00281	.00178	.00131	.02329	.00065
%RSD	.51222	24.214	73.381	112.04	2.4637	112.98	197.93	321.48	577.75

#1	.08005	.00031	.00082	-.00286	.11225	-.00032	-.00159	-.02371	.00035
#2	.08063	.00044	.00260	-.00033	.11623	-.00283	.00027	.00922	-.00058

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					.10000				
Low Limit					-.10000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00018	.00107	.00030	-.00128	.00945	-.00096	-.00177	.00306
Stddev	.00010	.00050	.00014	.00062	.02566	.00056	.00027	.00006
%RSD	58.600	46.083	47.844	48.146	271.47	58.295	14.989	1.8019

#1	.00025	.00143	.00020	-.00084	.02760	-.00135	-.00158	.00302
#2	.00010	.00072	.00040	-.00171	-.00869	-.00056	-.00196	.00310

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6524.1	94252.	5634.9
Stddev	10.1	151.	23.2
%RSD	.15431	.16045	.41244

#1	6531.2	94145.	5618.4
#2	6516.9	94359.	5651.3

Sample Name: LCS 280-280396/2-A Acquired: 6/16/2015 3:52:53 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 280396 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05280	2.0166	1.0364	1.0849	2.1795	.05047	2.1962	50.510	.10469
Stddev	.00046	.0029	.0033	.0031	.0009	.00002	.0046	.044	.00020
%RSD	.86607	.14603	.32070	.28714	.04260	.03837	.21145	.08624	.18966

#1	.05248	2.0187	1.0388	1.0827	2.1802	.05048	2.1929	50.479	.10483
#2	.05313	2.0145	1.0341	1.0871	2.1789	.05046	2.1994	50.540	.10455

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51548	.20822	.26947	.99955	52.311	1.0976	49.428	.50941	1.0915
Stddev	.00008	.00031	.00121	.00233	.021	.0016	.063	.00041	.0002
%RSD	.01484	.14814	.44814	.23282	.04019	.14627	.12674	.08012	.01871

#1	.51553	.20800	.27032	.99791	52.296	1.0988	49.473	.50970	1.0916
#2	.51542	.20844	.26861	1.0012	52.325	1.0965	49.384	.50912	1.0913

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 56.479	.51360	10.816	.51036	F 2.2049	.53007	2.1238	9.8847	2.0653
Stddev	.274	.00023	.005	.00090	.0071	.00088	.0052	.0127	.0015
%RSD	.48431	.04427	.04715	.17620	.32008	.16610	.24359	.12865	.07410

#1	56.286	.51344	10.820	.50972	2.1999	.53069	2.1202	9.8757	2.0643
#2	56.673	.51376	10.812	.51099	2.2099	.52945	2.1275	9.8937	2.0664

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	56.000				2.2000				
Low Limit	45.500				1.8000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0709	1.0099	1.0485	2.0522	2.0920	.50798	.49721	.55407
Stddev	.0001	.0036	.0011	.0046	.0624	.00167	.00022	.00414
%RSD	.00561	.35307	.10455	.22534	2.9817	.32966	.04422	.74775

#1	1.0709	1.0074	1.0492	2.0489	2.1361	.50916	.49705	.55700
#2	1.0708	1.0124	1.0477	2.0555	2.0479	.50679	.49736	.55114

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	6187.1	88851.	5576.6
Stddev	1.9	100.	10.6
%RSD	.03067	.11259	.19063

#1	6185.8	88921.	5584.1
#2	6188.4	88780.	5569.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0081	-0.00293	.00589	2.8446	.14308	-0.00008	-0.00069	260.33	.00074
Stddev	.00023	.00009	.00124	.0003	.00280	.00002	.00253	3.37	.00011
%RSD	27.957	3.0555	21.084	.01168	1.9593	20.567	365.78	1.2927	15.019

#1	-0.0097	-0.00299	.00501	2.8443	.14110	-0.00007	-0.00248	257.95	.00067
#2	-0.00065	-0.00287	.00676	2.8448	.14506	-0.00009	.00110	262.71	.00082

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00118	.01074	.00393	.05830	W 207.45	.08089	W 781.56	.02562	.00195
Stddev	.00002	.00015	.00027	.00406	5.06	.00012	3.38	.00009	.00015
%RSD	1.3549	1.3592	6.8600	6.9556	2.4393	.14247	.43287	.36513	7.5160

#1	.00119	.01064	.00412	.05543	203.87	.08097	779.17	.02556	.00205
#2	.00117	.01084	.00374	.06117	211.03	.08080	783.95	.02569	.00185

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass
High Limit					100.00		500.00		
Low Limit					-50000		-10000		

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 6052.6	.00229	6.0433	W -.00515	F 226.01	-.00223	.00648	29.330	-.00169
Stddev	122.9	.00007	.0108	.00299	.20	.00144	.00441	.646	.00116
%RSD	2.0303	3.0810	.17918	58.085	.08704	64.413	68.051	2.2013	68.658

#1	5965.7	.00224	6.0356	-.00304	225.87	-.00325	.00336	28.874	-.00251
#2	6139.5	.00234	6.0510	-.00727	226.15	-.00122	.00959	29.787	-.00087

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00			10.000	200.00				
Low Limit	10.000			-.00300	-.02000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.8719	.00353	.00989	-.00056	.00073	.00820	.00880	.00573
Stddev	.1005	.00056	.00024	.00006	.00981	.00030	.00004	.00049
%RSD	2.0620	15.857	2.4348	10.656	1338.4	3.6669	.50280	8.5999

#1	4.8008	.00393	.00972	-.00060	-.00620	.00841	.00883	.00538
#2	4.9429	.00314	.01006	-.00052	.00767	.00798	.00877	.00608

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	4832.6	67427.	5063.5
Stddev	.9	12.	70.2
%RSD	.01884	.01707	1.3862

#1	4833.2	67435.	5113.1
#2	4831.9	67419.	5013.8

Sample Name: 280-70137-D-2-A SD@5 Acquired: 6/16/2015 3:58:25 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 280396 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0073	.00060	.00176	.60315	.02736	-0.00002	.00359	53.152	.00094
Stddev	.00034	.00100	.00334	.00443	.00023	.00013	.00092	.077	.00021
%RSD	46.506	166.01	189.57	.73388	.83533	639.46	25.700	.14467	22.395
#1	-0.0049	.00130	-0.0060	.60628	.02753	-0.0011	.00424	53.206	.00109
#2	-0.0097	-0.0010	.00412	.60002	.02720	.00007	.00294	53.097	.00079

Check ? Chk Pass Chk Pass
High Limit
Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00015	.00228	.00381	.01182	40.253	.02029	159.07	.00514	.00050
Stddev	.00060	.00025	.00014	.00129	.030	.00159	.11	.00005	.00032
%RSD	412.60	11.091	3.7267	10.932	.07378	7.8428	.06925	.98944	63.682
#1	.00057	.00210	.00391	.01091	40.232	.01916	158.99	.00518	.00028
#2	-0.0028	.00246	.00371	.01273	40.274	.02141	159.15	.00511	.00073

Check ? Chk Pass Chk Pass
High Limit
Low Limit

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1166.1	.00120	1.1670	-0.00251	43.702	-0.00223	-0.00347	5.6730	-0.00116
Stddev	1.1	.00021	.0034	.00050	.186	.00237	.00102	.0378	.00017
%RSD	.09512	17.314	.28867	19.864	.42599	106.53	29.447	.66709	14.605
#1	1166.9	.00106	1.1694	-0.00287	43.834	-0.00055	-0.00419	5.6998	-0.00128
#2	1165.4	.00135	1.1646	-0.00216	43.571	-0.00391	-0.00275	5.6463	-0.00104

Check ? Chk Warn Chk Pass Chk Pass
High Limit 500.00
Low Limit 10.000

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.94880	.00118	.00237	.00133	-0.03310	.00187	-0.00040	.00459
Stddev	.00117	.00138	.00015	.00020	.03358	.00065	.00016	.00028
%RSD	.12317	117.04	6.1925	14.681	101.47	34.865	40.214	6.1437
#1	.94963	.00215	.00227	.00119	-.05684	.00233	-0.00052	.00479
#2	.94797	.00020	.00248	.00147	-0.00935	.00141	-0.00029	.00439

Check ? Chk Pass Chk Pass
High Limit
Low Limit

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5602.9	78562.	5354.6
Stddev	23.2	30.	15.8
%RSD	.41436	.03860	.29509
#1	5586.5	78583.	5365.8
#2	5619.3	78540.	5343.5

Sample Name: 280-70137-D-2-B MS Acquired: 6/16/2015 4:01:24 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 280396 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05946	1.7713	1.1237	3.7670	2.3502	.04926	2.0763	301.70	.10979
Stddev	.00067	.0094	.0085	.0178	.0090	.00002	.0114	1.70	.00098
%RSD	1.1269	.53209	.75469	.47208	.38318	.03714	.54931	.56284	.89389

#1	.05993	1.7646	1.1177	3.7545	2.3438	.04927	2.0683	300.50	.10910
#2	.05898	1.7779	1.1297	3.7796	2.3566	.04925	2.0844	302.90	.11049

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48396	.21096	.27262	.94623	W 264.11	1.2624	W 809.36	.52890	1.0640
Stddev	.00135	.00092	.00018	.00661	1.92	.0083	2.96	.00178	.0027
%RSD	.27920	.43544	.06673	.69877	.72608	.65836	.36559	.33679	.25566

#1	.48300	.21031	.27249	.94156	262.76	1.2565	811.45	.53016	1.0621
#2	.48491	.21161	.27275	.95091	265.47	1.2683	807.27	.52764	1.0659

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass
High Limit					100.00		500.00		
Low Limit					-.50000		-.10000		

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 6049.0	.47699	17.649	.43633	F 229.13	.53018	2.0204	38.656	1.8629
Stddev	25.7	.00173	.070	.00331	.98	.00183	.0049	.105	.0055
%RSD	.42408	.36199	.39735	.75803	.42948	.34599	.24342	.27056	.29470

#1	6030.8	.47577	17.600	.43399	228.44	.52888	2.0169	38.582	1.8590
#2	6067.1	.47821	17.699	.43867	229.83	.53148	2.0239	38.729	1.8667

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00				200.00				
Low Limit	10.000				-.02000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.8787	1.0194	1.0629	1.5707	1.9574	.52297	.50452	.56054
Stddev	.0497	.0016	.0049	.0073	.0099	.00400	.00370	.00357
%RSD	.84541	.15269	.46036	.46410	.50355	.76546	.73374	.63633

#1	5.8435	1.0205	1.0663	1.5655	1.9644	.52580	.50714	.55802
#2	5.9138	1.0183	1.0594	1.5758	1.9504	.52014	.50190	.56306

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	4828.7	67788.	5082.7
Stddev	19.4	235.	18.9
%RSD	.40102	.34709	.37176

#1	4842.4	67622.	5096.0
#2	4815.0	67955.	5069.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05956	1.7664	1.1279	3.8098	2.3302	.04863	2.0905	300.23	.11002
Stddev	.00021	.0035	.0046	.0005	.0046	.00011	.0028	.56	.00023
%RSD	.35155	.19636	.40683	.01398	.19553	.21614	.13227	.18665	.20731

#1	.05941	1.7639	1.1312	3.8094	2.3335	.04856	2.0925	299.83	.11018
#2	.05970	1.7689	1.1247	3.8102	2.3270	.04871	2.0886	300.62	.10986

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48327	.21113	.27221	.92868	W 267.17	1.2600	W 812.40	.52859	1.0679
Stddev	.00009	.00015	.00030	.00277	1.65	.0012	6.07	.00074	.0011
%RSD	.01785	.07261	.11057	.29823	.61893	.09217	.74677	.13942	.09934

#1	.48333	.21102	.27242	.92672	266.00	1.2609	808.11	.52911	1.0686
#2	.48321	.21124	.27200	.93064	268.34	1.2592	816.69	.52807	1.0671

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass
High Limit					100.00		500.00		
Low Limit					-.50000		-.10000		

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 6079.2	.47815	17.773	.43662	F 233.51	.53422	1.9938	38.601	1.8646
Stddev	1.1	.00051	.036	.00032	.15	.00340	.0016	.134	.0009
%RSD	.01815	.10732	.20061	.07254	.06594	.63561	.07933	.34814	.04886

#1	6078.4	.47779	17.747	.43640	233.40	.53182	1.9927	38.506	1.8652
#2	6080.0	.47852	17.798	.43685	233.62	.53662	1.9949	38.696	1.8639

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00				200.00				
Low Limit	10.000				-.02000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.9227	1.0217	1.0632	1.5696	1.9323	.52307	.50246	.56341
Stddev	.0164	.0015	.0006	.0009	.0011	.00021	.00021	.00177
%RSD	.27721	.14968	.05997	.05801	.05610	.04025	.04192	.31350

#1	5.9343	1.0206	1.0627	1.5702	1.9315	.52292	.50231	.56465
#2	5.9111	1.0228	1.0636	1.5689	1.9330	.52322	.50260	.56216

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	4839.2	68060.	5152.7
Stddev	4.7	108.	13.4
%RSD	.09709	.15863	.25942

#1	4842.5	67983.	5162.1
#2	4835.9	68136.	5143.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00388	-.01310	.00074	.68878	.11367	-.00009	.00120	W 695.97	.00115
Stddev	.00027	.00108	.00038	.00024	.00006	.00013	.00074	11.37	.00019
%RSD	6.9003	8.2260	51.427	.03435	.05010	141.54	62.175	1.6339	16.267

#1	.00369	-.01234	.00101	.68862	.11363	.00000	.00067	704.01	.00102
#2	.00407	-.01386	.00047	.68895	.11371	-.00018	.00172	687.92	.00128

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								500.00	
Low Limit								-.05000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09530	.00071	.00270	.02826	W 138.12	.03055	W 1247.5	F 39.446	.00111
Stddev	.00018	.00012	.00007	.00118	1.30	.00287	4.7	.259	.00042
%RSD	.19172	16.438	2.4236	4.1889	.94436	9.3940	.37612	.65636	38.279

#1	.09517	.00079	.00265	.02742	137.19	.02852	1244.1	39.629	.00081
#2	.09543	.00062	.00274	.02910	139.04	.03258	1250.8	39.263	.00141

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Fail	Chk Pass
High Limit					100.00		500.00	20.000	
Low Limit					-.50000		-.10000	-.02000	

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 8960.0	.17832	.08654	-.00207	F 655.15	-.00031	.01298	18.936	-.00137
Stddev	97.4	.00086	.00309	.00096	1.25	.00084	.00162	.083	.00073
%RSD	1.0874	.48375	3.5741	46.373	.19130	270.89	12.473	.43577	52.822

#1	9028.9	.17771	.08873	-.00139	654.27	-.00091	.01412	18.994	-.00086
#2	8891.1	.17893	.08435	-.00275	656.04	.00028	.01183	18.877	-.00189

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00				200.00				
Low Limit	10.000				-.02000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.9190	.00581	.00076	F -.05842	F -.18387	-.00389	.00276	.00062
Stddev	.1105	.00377	.00037	.00216	.04045	.00035	.00016	.00011
%RSD	1.1141	64.872	48.551	3.6910	21.997	9.0646	5.9799	17.337

#1	9.9972	.00314	.00050	-.05995	-.15527	-.00364	.00264	.00069
#2	9.8409	.00847	.00102	-.05690	-.21247	-.00414	.00287	.00054

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				20.000	50.000			
Low Limit				-.02000	-.10000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	4477.6	63151.	4941.7
Stddev	5.0	144.	30.8
%RSD	.11137	.22838	.62293

#1	4474.1	63253.	4920.0
#2	4481.1	63049.	4963.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0013	.00463	.00113	.14117	.21216	.00008	-0.00546	469.50	.00072
Stddev	.00037	.00052	.00028	.00035	.00015	.00001	.00461	8.55	.00023
%RSD	296.89	11.162	24.578	.24917	.07215	12.758	84.509	1.8215	31.654

#1	.00014	.00500	.00133	.14142	.21205	.00009	-.00220	463.45	.00056
#2	-.00039	.00427	.00093	.14092	.21227	.00007	-.00872	475.54	.00088

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00099	.00039	.00384	.16944	15.140	.01237	W 608.73	1.1738	.00043
Stddev	.00004	.00013	.00022	.00020	.279	.00095	1.73	.0008	.00013
%RSD	3.6184	32.863	5.6467	.12007	1.8457	7.6999	.28403	.06474	29.743

#1	.00102	.00049	.00369	.16958	14.943	.01304	609.95	1.1733	.00034
#2	.00097	.00030	.00399	.16929	15.338	.01169	607.51	1.1744	.00053

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass					
High Limit							500.00		
Low Limit							-10000		

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1595.5	.14939	.03084	W -.00456	88.844	-.00149	.00379	34.638	-.00158
Stddev	2.9	.00054	.00105	.00021	.157	.00151	.00136	.074	.00042
%RSD	.17871	.36423	3.3968	4.7090	.17694	101.83	35.856	.21338	26.429

#1	1593.5	.14978	.03010	-.00471	88.733	-.00042	.00476	34.586	-.00128
#2	1597.5	.14901	.03158	-.00441	88.955	-.00256	.00283	34.690	-.00187

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit	500.00			10.000					
Low Limit	10.000			-.00300					

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.6663	.00400	.00039	-.00095	-.01043	.00610	.00143	.00221
Stddev	.0121	.00089	.00046	.00076	.02480	.00021	.00019	.00149
%RSD	.21331	22.388	116.71	79.999	237.74	3.4371	13.045	67.245

#1	5.6577	.00463	.00072	-.00149	.00710	.00595	.00130	.00326
#2	5.6748	.00336	.00007	-.00041	-.02796	.00624	.00156	.00116

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	5272.3	75517.	5293.4
Stddev	16.5	166.	70.1
%RSD	.31204	.21976	1.3242

#1	5260.7	75634.	5343.0
#2	5283.9	75399.	5243.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0001	.00269	-0.00022	3.1667	.09033	.00002	-0.00675	415.88	.00060
Stddev	.00002	.00025	.00170	.0075	.00023	.00013	.00222	6.72	.00001
%RSD	190.86	9.3481	786.34	.23779	.25347	557.36	32.904	1.6148	1.3522

#1	.00000	.00287	.00099	3.1614	.09050	.00012	-.00832	420.63	.00061
#2	-.00003	.00251	-.00142	3.1720	.09017	-.00007	-.00518	411.13	.00060

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00099	.00230	.00182	1.9883	W 305.81	.04535	W 1221.8	1.0632	.00037
Stddev	.00039	.00015	.00029	.0060	2.43	.00076	1.5	.0023	.00026
%RSD	39.442	6.6421	16.086	.30311	.79468	1.6827	.11964	.21523	68.996

#1	.00071	.00219	.00203	1.9926	304.09	.04481	1220.8	1.0616	.00055
#2	.00127	.00240	.00162	1.9840	307.53	.04589	1222.9	1.0648	.00019

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass
High Limit					100.00		500.00		
Low Limit					-.50000		-.10000		

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 11776.	.00209	4.4696	W -.00566	F 463.15	-.00196	.00698	18.060	-.00155
Stddev	72.	.00069	.0184	.00093	1.86	.00112	.00317	.007	.00036
%RSD	.60895	33.007	.41145	16.412	.40141	57.132	45.408	.04138	22.963

#1	11827.	.00160	4.4566	-.00500	461.84	-.00275	.00474	18.065	-.00180
#2	11725.	.00257	4.4827	-.00632	464.47	-.00117	.00922	18.055	-.00130

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Warn	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10000.			10.000	200.00				
Low Limit	9.0000			-.00300	-.02000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.6608	.00568	.00311	-.00136	-.04717	.00502	.00253	.00648
Stddev	.0987	.00047	.00011	.00054	.02722	.00030	.00034	.00028
%RSD	1.1396	8.3211	3.7025	40.132	57.702	5.9310	13.601	4.2501

#1	8.7306	.00534	.00302	-.00097	-.06641	.00523	.00228	.00668
#2	8.5911	.00601	.00319	-.00174	-.02792	.00481	.00277	.00629

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	4318.6	60914.	4858.2
Stddev	9.3	159.	1.7
%RSD	.21642	.26184	.03536

#1	4312.0	61027.	4859.5
#2	4325.2	60801.	4857.0

Sample Name: ccvh-3323227 Acquired: 6/16/2015 4:17:45 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00200	49.903	-0.00240	.01261	.00018	-0.00001	1.0780	.02513	-0.00118	.00079	.00017	.01651
Stddev	.00046	.228	.00369	.00091	.00023	.00011	.0023	.00177	.00012	.00042	.00005	.00007
%RSD	23.199	.45692	153.88	7.2552	130.23	1393.4	.21195	7.0503	10.120	53.621	32.435	.43815

#1	-0.00232	49.742	-0.00501	.01326	.00001	.00007	1.0763	.02638	-.00126	.00109	.00021	.01645
#2	-.00167	50.064	.00021	.01196	.00035	-.00008	1.0796	.02388	-.00109	.00049	.00013	.01656

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None
Value												
Range												

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	48.284	.63378	.00461	.01702	.00150	-0.00200	270.01	.00202	.00804	-0.00181	F 5.6645	.01360
Stddev	.089	.04601	.00150	.00397	.00007	.00001	1.07	.00008	.00139	.00022	.0501	.00008
%RSD	.18463	7.2598	32.627	23.301	4.5423	.34476	.39573	4.0648	17.334	12.117	.88399	.60651

#1	48.221	.66632	.00354	.01422	.00154	-.00200	269.26	.00207	.00706	-.00166	5.6999	.01366
#2	48.347	.60125	.00567	.01983	.00145	-.00201	270.77	.00196	.00903	-.00197	5.6291	.01354

Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None	Chk Fail	None
Value											5.0000	
Range											10.000%	

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00072	-0.00470	.00075	.00062	4.9992	.00316	-0.00074	10.134	.00125	-0.00045	.20363
Stddev	.00035	.00085	.00056	.00002	.0088	.00036	.00058	.047	.00056	.00028	.00183
%RSD	48.728	18.136	74.833	2.8484	.17688	11.385	78.168	.46138	44.623	62.262	.89933

#1	-0.00047	-.00530	.00035	.00061	5.0055	.00290	-.00115	10.167	.00164	-.00065	.20233
#2	-.00097	-.00410	.00114	.00064	4.9929	.00341	-.00033	10.101	.00085	-.00025	.20492

Check ?	None	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value											
Range											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6340.4	90348.	5688.8
Stddev	4.7	64.	81.5
%RSD	.07352	.07128	1.4329

#1	6343.6	90393.	5746.5
#2	6337.1	90302.	5631.2

Sample Name: ccv-3323216 Acquired: 6/16/2015 4:20:20 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52503	.51842	1.0153	.52276	.53459	.48403	-.04963	4.9387	.51198	.51792	.51237	.52417
Stddev	.00146	.00110	.0015	.00006	.00041	.00092	.00260	.0003	.00073	.00017	.00031	.00099
%RSD	.27865	.21267	.15222	.01086	.07736	.19059	5.2447	.00623	.14218	.03302	.06090	.18882

#1	.52606	.51920	1.0142	.52280	.53430	.48468	-.04779	4.9385	.51249	.51805	.51259	.52487
#2	.52399	.51764	1.0164	.52272	.53488	.48338	-.05147	4.9389	.51146	.51780	.51215	.52347

Check ?	Chk Pass	None	Chk Pass									
Value Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.3329	51.356	1.0909	19.362	.49741	.51554	F 6.6216	.51872	1.0319	1.0248	.19664	1.0402
Stddev	.0074	.038	.0007	.004	.00007	.00100	.0048	.00044	.0025	.0035	.00097	.0016
%RSD	.31532	.07391	.06274	.02150	.01373	.19303	.07258	.08425	.23795	.34551	.49365	.15736

#1	2.3277	51.383	1.0914	19.359	.49745	.51624	6.6250	.51903	1.0302	1.0273	.19595	1.0414
#2	2.3381	51.329	1.0904	19.365	.49736	.51484	6.6182	.51841	1.0336	1.0223	.19732	1.0390

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass					
Value Range							5.0000 10.000%					

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0266	4.7381	1.0153	.52924	.02008	.51094	1.0396	-.00058	.48915	.48471	.50761
Stddev	.0042	.0379	.0018	.00040	.00223	.00027	.0012	.03336	.00012	.00267	.00167
%RSD	.40478	.80045	.17558	.07593	11.114	.05237	.11957	5767.0	.02381	.55012	.32906

#1	1.0295	4.7113	1.0165	.52895	.01850	.51113	1.0388	.02301	.48923	.48660	.50643
#2	1.0237	4.7649	1.0140	.52952	.02165	.51075	1.0405	-.02417	.48907	.48282	.50879

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value Range											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6423.6	92570.	5588.4
Stddev	4.1	280.	26.8
%RSD	.06445	.30228	.47976

#1	6420.7	92768.	5607.4
#2	6426.5	92372.	5569.5

Sample Name: CCB Acquired: 6/16/2015 4:22:47 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0020	-0.00166	.00015	F .00807	W -0.00065	.00003	-0.00052	.01665	.00027	-0.00027	.00004
Stddev	.00003	.00000	.00055	.00040	.00017	.00001	.00156	.00158	.00020	.00011	.00002
%RSD	12.489	.21149	368.29	4.9372	26.317	35.603	301.70	9.5020	74.575	40.122	57.082

#1	-0.00022	-0.00166	-0.00024	.00835	-0.00077	.00004	-0.00162	.01777	.00041	-0.00019	.00003
#2	-0.00018	-0.00166	.00053	.00779	-0.00053	.00002	.00059	.01553	.00013	-0.00035	.00006

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Warn	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.00312	.00058						
Low Limit				-.00312	-.00058						

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00042	-0.00527	.21344	F .00540	.00899	.00009	.00097	F 1.2229	.00016	.00409	-0.00183
Stddev	.00005	.00032	.01085	.00078	.00276	.00002	.00005	.0210	.00018	.00059	.00028
%RSD	11.629	6.1581	5.0820	14.486	30.658	19.564	5.4836	1.7209	117.58	14.324	15.312

#1	.00038	-0.00504	.20577	.00485	.01094	.00008	.00093	1.2378	.00028	.00450	-0.00163
#2	.00045	-0.00550	.22112	.00596	.00704	.00010	.00100	1.2080	.00003	.00367	-0.00203

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				.00522				.20152			
Low Limit				-.00522				-.20152			

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.15575	-0.00139	.00328	-0.00705	-0.00010	.00010	.00179	W .00063	-0.00007	.00025	-0.00072
Stddev	.00435	.00026	.00236	.00213	.00007	.00001	.00018	.00012	.00036	.01295	.00025
%RSD	2.7943	18.878	71.846	30.212	75.163	13.172	9.9195	19.287	534.02	5207.1	34.412

#1	.15883	-0.00121	.00161	-0.00856	-0.00005	.00010	.00191	.00055	.00018	-0.00891	-0.00054
#2	.15267	-0.00158	.00494	-0.00554	-0.00015	.00011	.00166	.00072	-0.00032	.00941	-0.00089

Check ?	None	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass					
High Limit								.00060			
Low Limit								-.00060			

Elem	Zn2062	Zr3391
Units	ppm	ppm
Avg	-0.00337	F .00491
Stddev	.00027	.00070
%RSD	8.0535	14.300
#1	-0.00356	.00541
#2	-0.00317	.00442

Check ?	Chk Pass	Chk Fail
High Limit		.00476
Low Limit		-.00476

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6549.8	95128.	5557.8
Stddev	3.7	156.	12.1
%RSD	.05645	.16411	.21698
#1	6547.2	95238.	5549.2
#2	6552.4	95018.	5566.3

Sample Name: CCVL3329632 Acquired: 6/16/2015 4:25:29 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01150	.11372	W .01877	.11546	.01070	.00111	F .13584	.22423	.00569	.01104	.01078	.01773
Stddev	.00027	.00100	.00298	.00018	.00014	.00003	.00112	.00261	.00003	.00011	.00011	.00032
%RSD	2.3139	.88124	15.905	.15622	1.2908	2.6409	.82449	1.1632	.46925	1.0019	.97720	1.8066

#1	.01168	.11301	.01666	.11559	.01080	.00113	.13663	.22238	.00571	.01112	.01086	.01796
#2	.01131	.11443	.02088	.11534	.01061	.00109	.13505	.22607	.00567	.01096	.01071	.01750

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			.01500				.10000					
Range			20.000%				30.000%					

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09328	3.4339	F .01550	.23089	.01091	.02156	F 2.2354	.04517	3.2170	.00986	.14401	.00930
Stddev	.00034	.0156	.00160	.00324	.00001	.00004	.0151	.00013	.0107	.00032	.00068	.00085
%RSD	.35950	.45477	10.303	1.4052	.12025	.20630	.67745	.29115	.33190	3.2690	.47224	9.1747

#1	.09304	3.4229	.01437	.23319	.01092	.02159	2.2461	.04508	3.2095	.00963	.14449	.00869
#2	.09352	3.4449	.01663	.22860	.01090	.02153	2.2247	.04526	3.2246	.01009	.14353	.00990

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value			.01000				1.0000					
Range			30.000%				30.000%					

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01432	.50194	.11048	.01130	.01620	.01042	.01749	.05666	.00936	.01940	F .02067
Stddev	.00412	.03131	.00050	.00003	.00056	.00019	.00018	.00067	.00022	.00069	.00064
%RSD	28.797	6.2382	.45077	.25105	3.4398	1.8095	1.0137	1.1847	2.3680	3.5616	3.0902

#1	.01723	.47980	.11013	.01132	.01659	.01055	.01736	.05714	.00920	.01891	.02112
#2	.01140	.52408	.11084	.01128	.01580	.01029	.01761	.05619	.00952	.01989	.02022

Check ?	Chk Pass	Chk Fail										
Value											.01500	
Range											30.000%	

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6605.3	95590.	5633.2
Stddev	.2	217.	11.9
%RSD	.00280	.22712	.21193

#1	6605.2	95437.	5641.6
#2	6605.4	95744.	5624.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00050	-.01410	.00245	3.5524	.10129	.00005	.00077	420.16	.00045
Stddev	.00031	.00047	.00269	.0037	.00080	.00002	.00222	4.46	.00011
%RSD	61.499	3.3230	109.92	.10564	.79108	33.985	290.16	1.0623	24.197
#1	.00028	-.01443	.00436	3.5498	.10072	.00006	.00234	417.00	.00052
#2	.00072	-.01377	.00055	3.5551	.10185	.00004	-.00081	423.32	.00037

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00134	.00583	-.00194	.05250	W 325.07	.05955	W 1848.6	2.3748	-.00023
Stddev	.00019	.00014	.00015	.00111	7.83	.00523	7.2	.0012	.00003
%RSD	13.875	2.3664	7.6797	2.1061	2.4092	8.7909	.38773	.04899	13.115
#1	.00147	.00593	-.00204	.05328	319.53	.05584	1853.6	2.3756	-.00021
#2	.00121	.00574	-.00183	.05172	330.60	.06325	1843.5	2.3740	-.00025

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass
High Limit					100.00		500.00		
Low Limit					-.50000		-.10000		

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 16671.	.00218	3.5303	W -.00702	F 863.65	-.00232	.00312	9.5786	-.00192
Stddev	321.	.00017	.0043	.00023	1.03	.00125	.00841	.0013	.00114
%RSD	1.9234	7.9824	.12331	3.2279	.11955	53.987	269.71	.01347	59.239
#1	16444.	.00230	3.5272	-.00686	862.92	-.00321	-.00283	9.5795	-.00111
#2	16897.	.00205	3.5334	-.00718	864.38	-.00144	.00907	9.5777	-.00272

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Warn	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10000.			10.000	200.00				
Low Limit	9.0000			-.00300	-.02000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 11.654	.00939	.01006	-.00364	W -.08625	.01237	.00208	.02560
Stddev	.164	.00280	.00021	.00008	.04158	.00081	.00008	.00440
%RSD	1.4097	29.776	2.0966	2.2787	48.215	6.5269	4.0271	17.194
#1	11.538	.01136	.01021	-.00358	-.11565	.01294	.00214	.02871
#2	11.770	.00741	.00991	-.00370	-.05684	.01179	.00203	.02249

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit	10.000				45.000			
Low Limit	-.01000				-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	4032.9	56758.	4746.5
Stddev	2.3	52.	64.9
%RSD	.05651	.09099	1.3665
#1	4034.5	56721.	4792.4
#2	4031.3	56794.	4700.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00012	-0.1426	.00662	3.5449	.09908	-0.00001	-0.00176	405.35	.00045
Stddev	.00034	.00083	.00092	.0175	.00015	.00007	.00063	2.59	.00029
%RSD	294.73	5.7982	13.835	.49421	.15637	535.43	35.781	.63941	65.080

#1	-0.00012	-0.1367	.00727	3.5325	.09897	-0.00007	-0.00131	407.18	.00065
#2	.00035	-0.1484	.00597	3.5573	.09919	.00004	-0.00220	403.52	.00024

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00117	.00557	-0.00252	.05152	W 329.49	.05796	W 1836.7	2.2834	-0.00016
Stddev	.00007	.00010	.00070	.00271	1.36	.00214	8.6	.0021	.00004
%RSD	6.1557	1.8177	27.803	5.2535	.41292	3.6944	.46669	.09173	22.975

#1	.00122	.00564	-.00202	.05344	328.53	.05644	1842.8	2.2849	-.00019
#2	.00112	.00550	-.00301	.04961	330.45	.05947	1830.6	2.2819	-.00013

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass
High Limit					100.00		500.00		
Low Limit					-.50000		-.10000		

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 16177.	.00215	3.5324	W -0.0668	F 860.18	-0.00333	.00107	9.3908	-0.00295
Stddev	27.	.00055	.0133	.00070	3.89	.00175	.00681	.0362	.00113
%RSD	.16871	25.756	.37578	10.487	.45240	52.592	633.86	.38521	38.195

#1	16158.	.00176	3.5230	-.00618	857.43	-.00209	-.00374	9.4164	-.00216
#2	16197.	.00255	3.5418	-.00717	862.93	-.00457	.00589	9.3653	-.00375

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Warn	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10000.			10.000	200.00				
Low Limit	9.0000			-.00300	-.02000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 11.378	.00762	.00996	-0.00403	-0.02130	.01343	-0.00037	.02461
Stddev	.048	.00394	.00006	.00175	.03368	.00038	.00007	.00078
%RSD	.42111	51.652	.60482	43.421	158.15	2.7957	18.095	3.1875

#1	11.412	.01041	.00992	-.00526	-.04511	.01370	-.00042	.02516
#2	11.345	.00484	.01000	-.00279	.00252	.01316	-.00032	.02405

Check ?	Chk Warn	Chk Pass						
High Limit	10.000							
Low Limit	-.01000							

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	4106.1	57117.	4676.4
Stddev	33.3	305.	55.0
%RSD	.80984	.53449	1.1752

#1	4082.6	56901.	4637.6
#2	4129.6	57333.	4715.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00849	-.01195	-.00089	.19267	.08738	.00008	.00167	W 2272.6	.00595
Stddev	.00060	.00098	.00793	.00055	.00087	.00003	.00586	17.5	.00032
%RSD	7.1140	8.2131	888.23	.28589	.99665	36.203	350.92	.77014	5.4262

#1	.00892	-.01126	.00471	.19306	.08676	.00010	-.00247	2284.9	.00617
#2	.00806	-.01265	-.00650	.19228	.08799	.00006	.00581	2260.2	.00572

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								500.00	
Low Limit								-.05000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.07408	.00062	.00339	.05696	15.518	.17297	F 2589.2	F 53.973	-.00235
Stddev	.00016	.00012	.00030	.00197	.615	.00329	2.6	.158	.00000
%RSD	.21428	19.704	8.7668	3.4624	3.9612	1.9010	.10180	.29298	.03427

#1	.07419	.00071	.00360	.05557	15.952	.17065	2591.1	54.085	-.00235
#2	.07397	.00053	.00318	.05836	15.083	.17530	2587.4	53.861	-.00235

Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass					
High Limit							2000.0	20.000	
Low Limit							-.20000	-.02000	

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4854.4	.06700	.01376	.00032	F 570.36	.00334	.04421	11.663	-.00299
Stddev	30.3	.00013	.00508	.00401	.79	.00144	.00456	.066	.00098
%RSD	.62501	.19708	36.903	1239.1	.13922	43.007	10.309	.56421	32.823

#1	4832.9	.06691	.01735	-.00251	570.92	.00436	.04098	11.617	-.00369
#2	4875.9	.06710	.01017	.00316	569.80	.00233	.04743	11.710	-.00230

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00				200.00				
Low Limit	10.000				-.02000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 58.855	.00867	.00272	F -.07736	F -.37705	-.00951	.01258	.00256
Stddev	.424	.00088	.00080	.00160	.01289	.00134	.00063	.00017
%RSD	.72058	10.207	29.349	2.0665	3.4191	14.124	4.9930	6.7992

#1	59.155	.00804	.00216	-.07849	-.38617	-.00856	.01214	.00268
#2	58.555	.00929	.00329	-.07623	-.36793	-.01045	.01303	.00244

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit	20.000			20.000	50.000			
Low Limit	-.02000			-.02000	-.10000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	4422.9	64161.	4845.9
Stddev	9.7	17.	66.4
%RSD	.21837	.02657	1.3703

#1	4429.7	64149.	4798.9
#2	4416.0	64173.	4892.9

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0184	49.619	-0.0125	.00908	.00026	.00001	1.0713	.04990	-0.0121	.00101	.00022	.01620	47.721
Stddev	.00081	.133	.00379	.00048	.00021	.00006	.0008	.00511	.00032	.00002	.00003	.00025	.079
%RSD	44.265	.26868	303.19	5.2525	82.648	421.78	.07940	10.234	26.776	2.3607	11.881	1.5586	.16624

#1	-0.0126	49.713	-0.00393	.00942	.00041	.00006	1.0719	.05352	-0.0144	.00102	.00024	.01638	47.777
#2	-0.0241	49.525	.00143	.00875	.00011	-0.00003	1.0707	.04629	-0.00098	.00099	.00020	.01602	47.665

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00677	.00231	.03937	.00201	-0.00212	272.18	.00213	.00605	-0.00070	5.4642	.01335	.00302	.00143
Stddev	.00953	.00130	.00041	.00002	.00001	.29	.00042	.00182	.00020	.0092	.00083	.00094	.01330
%RSD	140.75	56.350	1.0412	1.0172	.43100	.10785	19.793	30.097	29.010	.16862	6.1837	31.120	927.20

#1	.00003	.00323	.03966	.00200	-0.00211	272.38	.00243	.00476	-0.00084	5.4707	.01277	.00235	.01084
#2	.01351	.00139	.03908	.00203	-0.00212	271.97	.00183	.00733	-0.00055	5.4576	.01393	.00368	-0.00797

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00028	.00117	4.9823	.00359	-0.00096	10.119	.00061	-0.00056	.20243
Stddev	.00013	.00001	.0071	.00032	.00025	.130	.00079	.00015	.00050
%RSD	45.802	.49667	.14269	9.0203	26.000	1.2872	130.75	26.144	.24902

#1	-0.00038	.00117	4.9773	.00382	-0.00114	10.027	.00005	-0.00046	.20279
#2	-0.00019	.00117	4.9873	.00336	-0.00079	10.212	.00117	-0.00067	.20207

Check ?	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6310.7	91114.	5530.0
Stddev	16.9	405.	13.5
%RSD	.26713	.44484	.24460

#1	6322.6	90827.	5520.5
#2	6298.8	91400.	5539.6

Sample Name: ccv-3323216 Acquired: 6/16/2015 4:40:55 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52786	.52767	1.0301	.52317	.53346	.48312	-.05040	4.9546	.51262	.52408	.51825	.52456
Stddev	.00152	.00235	.0035	.00106	.00008	.00041	.00216	.0136	.00011	.00113	.00060	.00242
%RSD	.28758	.44497	.34411	.20321	.01423	.08538	4.2922	.27392	.02161	.21612	.11546	.46107
#1	.52894	.52933	1.0276	.52242	.53351	.48283	-.05193	4.9642	.51270	.52488	.51867	.52627
#2	.52679	.52601	1.0326	.52392	.53341	.48341	-.04887	4.9450	.51254	.52328	.51782	.52285

Check ?	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Value	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Range	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Check ?	Chk Pass	None	Chk Pass									

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.3160	52.019	1.0963	19.465	.50165	.52043	F 6.4443	.52406	1.0423	1.0261	.12041	1.0460
Stddev	.0005	.134	.0010	.057	.00153	.00029	.0011	.00038	.0001	.0016	.00048	.0041
%RSD	.01968	.25832	.08934	.29227	.30412	.05519	.01749	.07321	.01096	.15327	.39962	.39373
#1	2.3164	51.924	1.0956	19.505	.50273	.52064	6.4435	.52379	1.0424	1.0272	.12075	1.0431
#2	2.3157	52.114	1.0970	19.424	.50057	.52023	6.4451	.52433	1.0422	1.0250	.12007	1.0489

Check ?	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Value	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Range	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass					
Value							5.0000					
Range							10.000%					

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0339	4.6567	1.0262	.53389	.02238	.51261	1.0427	-.02041	.49469	.48972	.50768
Stddev	.0030	.0092	.0010	.00042	.00314	.00196	.0019	.04496	.00103	.00185	.00305
%RSD	.28965	.19766	.09531	.07894	14.035	.38323	.18456	220.33	.20832	.37704	.60087
#1	1.0317	4.6632	1.0255	.53419	.02460	.51400	1.0414	-.05220	.49542	.49102	.50552
#2	1.0360	4.6502	1.0269	.53360	.02016	.51122	1.0441	.01139	.49396	.48841	.50983

Check ?	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Value	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Range	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6439.0	93073.	5631.5
Stddev	4.9	78.	3.2
%RSD	.07581	.08419	.05676
#1	6435.5	93017.	5629.2
#2	6442.4	93128.	5633.7

Sample Name: CCB Acquired: 6/16/2015 4:43:21 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00016	.00376	.00028	F .00632	-.00028	.00005	.00094	.01517	.00018	-.00019	.00007	-.00016
Stddev	.00028	.00014	.00123	.00006	.00023	.00002	.00060	.00154	.00012	.00007	.00003	.00003
%RSD	177.57	3.8152	444.67	.97764	83.260	46.469	64.480	10.183	66.174	38.624	37.975	20.604

#1	-.00004	.00366	.00114	.00637	-.00045	.00003	.00136	.01408	.00009	-.00024	.00005	-.00013
#2	.00036	.00386	-.00059	.00628	-.00012	.00007	.00051	.01626	.00026	-.00014	.00009	-.00018

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.00312								
Low Limit				-.00312								

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00111	.02153	W .00268	W .01808	.00012	.00107	F 1.0677	.00016	.00163	-.00065	.09860	-.00151
Stddev	.00250	.01617	.00020	.00360	.00004	.00039	.0066	.00010	.00075	.00073	.00237	.00017
%RSD	224.20	75.098	7.6284	19.913	34.740	36.751	.61536	58.691	45.865	112.91	2.4084	11.349

#1	.00065	.03297	.00283	.01554	.00015	.00079	1.0723	.00023	.00110	-.00013	.10028	-.00139
#2	-.00288	.01010	.00254	.02063	.00009	.00135	1.0630	.00009	.00216	-.00117	.09692	-.00163

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit			.00261	.01070			.20152					
Low Limit			-.00261	-.01070			-.20152					

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00296	.00715	.00008	W .00033	.00092	.00013	-.00074	-.01533	-.00037	-.00348	.00208
Stddev	.00298	.00483	.00030	.00011	.00084	.00028	.00123	.02644	.00014	.00004	.00202
%RSD	100.56	67.600	362.15	32.399	91.810	211.18	165.99	172.48	36.798	1.1958	96.950

#1	.00507	.00373	.00029	.00025	.00032	-.00007	.00013	-.03402	-.00028	-.00345	.00066
#2	.00086	.01057	-.00013	.00040	.00151	.00033	-.00161	.00337	-.00047	-.00351	.00351

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass						
High Limit				.00030							
Low Limit				-.00030							

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6568.3	96021.	5625.8
Stddev	20.9	135.	22.1
%RSD	.31849	.14068	.39350

#1	6553.5	95925.	5610.2
#2	6583.1	96116.	5641.5

Sample Name: CCVL3329632 Acquired: 6/16/2015 4:46:02 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01153	F .14572	.01588	.11427	.01094	.00106	F .13392	.22589	.00557	.01107	.01111	.01735
Stddev	.00031	.00029	.00069	.00016	.00034	.00002	.00228	.00134	.00008	.00003	.00026	.00016
%RSD	2.6469	.20213	4.3500	.13847	3.0739	1.6871	1.7038	.59382	1.4821	.28294	2.3271	.93449

#1	.01131	.14551	.01539	.11439	.01071	.00108	.13554	.22494	.00551	.01109	.01093	.01746
#2	.01174	.14593	.01637	.11416	.01118	.00105	.13231	.22684	.00563	.01105	.01130	.01723

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		.10000					.10000					
Range		30.000%					30.000%					

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09610	3.3805	.01193	.23578	.01094	.02157	F 2.1645	.04558	3.2201	.00791	.08197	.00942
Stddev	.00044	.0382	.00081	.00297	.00003	.00003	.0079	.00025	.0022	.00045	.00576	.00192
%RSD	.46275	1.1294	6.8041	1.2589	.30796	.15987	.36405	.53853	.06702	5.6612	7.0278	20.381

#1	.09579	3.3535	.01136	.23368	.01096	.02154	2.1589	.04575	3.2216	.00759	.08604	.01077
#2	.09642	3.4075	.01251	.23787	.01092	.02159	2.1701	.04540	3.2186	.00822	.07789	.00806

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass					
Value							1.0000					
Range							30.000%					

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01410	4.7817	.10971	.01160	.01679	.01070	.01778	W .04264	.00944	.01999	W .01879
Stddev	.00046	.01301	.00111	.00009	.00019	.00022	.00119	.00988	.00015	.00027	.00149
%RSD	3.2506	2.7204	1.0099	.79441	1.1359	2.1017	6.6902	23.175	1.5805	1.3265	7.9337

#1	.01442	.46897	.11049	.01154	.01693	.01086	.01694	.03565	.00933	.01980	.01774
#2	.01378	.48737	.10892	.01167	.01666	.01054	.01862	.04963	.00955	.02017	.01985

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn							
Value								.06000			.01500	
Range								-20.000%			20.000%	

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6458.0	94487.	5516.4
Stddev	16.8	185.	48.8
%RSD	.25976	.19572	.88397

#1	6469.9	94618.	5550.9
#2	6446.1	94356.	5482.0

Sample Name: Ib 280-280871/1-b Acquired: 6/16/2015 4:48:39 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: 6/10 Custom ID2: Custom ID3:
 Comment: 281110 6010B T

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0031	.00423	.00212	W .00587	-0.0019	.00008	-0.00057	.02483	.00023
Stddev	.00022	.00003	.00046	.00067	.00037	.00008	.00166	.00303	.00001
%RSD	71.207	.60403	21.810	11.376	193.49	96.687	294.14	12.214	4.1582

#1	-0.0047	.00425	.00245	.00634	-0.0046	.00014	.00061	.02269	.00023
#2	-0.0015	.00421	.00179	.00540	.00007	.00003	-.00174	.02698	.00024

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				.00500					
Low Limit				-.00500					

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0046	.00024	.00033	-0.00276	-0.02902	.00195	.01182	.00025	.00019
Stddev	.00013	.00001	.00017	.00348	.06649	.00065	.00194	.00004	.00007
%RSD	29.037	5.0193	53.318	126.07	229.14	33.109	16.434	16.031	36.618

#1	-0.0055	.00023	.00045	-0.00522	.01800	.00241	.01319	.00028	.00024
#2	-0.0036	.00025	.00020	-0.00030	-.07603	.00150	.01045	.00023	.00014

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .96903	.00028	.00371	-0.00081	W .08714	-0.00126	-0.00005	.00095	.00006
Stddev	.00011	.00047	.00116	.00005	.00408	.00165	.00006	.01800	.00069
%RSD	.01145	166.00	31.368	6.1984	4.6819	131.54	108.44	1897.2	1143.0

#1	.96911	.00061	.00453	-0.00085	.09002	-0.00009	-0.00010	.01368	-0.0043
#2	.96895	-.00005	.00289	-0.00077	.08426	-.00243	-.00001	-.01178	.00055

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.50000				.05000				
Low Limit	-.50000				-.05000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00022	.00145	.00004	-0.00137	-0.04352	-0.00098	-0.00160	.00205
Stddev	.00006	.00112	.00018	.00041	.00663	.00002	.00020	.00144
%RSD	25.025	77.019	436.63	29.981	15.228	2.0637	12.514	70.007

#1	.00026	.00224	-.00009	-.00108	-.03884	-0.00096	-0.00146	.00104
#2	.00018	.00066	.00017	-.00166	-.04821	-0.00099	-0.00174	.00307

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6425.3	94478.	5416.0
Stddev	7.5	417.	14.9
%RSD	.11677	.44146	.27442

#1	6430.6	94773.	5426.5
#2	6420.0	94183.	5405.5

Sample Name: lcs 280-280871/2-b Acquired: 6/16/2015 4:51:21 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281110 6010B T

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.21577	.40542	.81983	.20946	2.5958	.00965	.41647	9.7334	.22618
Stddev	.00057	.00051	.00372	.00013	.0031	.00003	.00497	.0051	.00011
%RSD	.26522	.12549	.45416	.06263	.12010	.33189	1.1937	.05265	.05031

#1	.21617	.40506	.82247	.20937	2.5980	.00963	.41295	9.7297	.22610
#2	.21536	.40578	.81720	.20955	2.5936	.00968	.41998	9.7370	.22626

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10180	1.0669	.47699	.18229	10.458	.22013	9.2245	.10042	.21403
Stddev	.00006	.0007	.00139	.00066	.034	.00139	.0351	.00042	.00061
%RSD	.05535	.06726	.29097	.36473	.32726	.63258	.38077	.41608	.28605

#1	.10184	1.0663	.47797	.18182	10.482	.21914	9.2494	.10072	.21446
#2	.10176	1.0674	.47601	.18276	10.434	.22111	9.1997	.10013	.21360

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 322.95	.10128	2.1356	1.0887	.49043	.09413	.62264	F 1.8441	.40097
Stddev	.26	.00035	.0078	.0002	.00574	.00031	.00249	.0052	.00055
%RSD	.07991	.34121	.36374	.02036	1.1709	.32932	.39924	.28208	.13832

#1	323.14	.10104	2.1411	1.0889	.49449	.09435	.62439	1.8478	.40057
#2	322.77	.10152	2.1301	1.0885	.48637	.09391	.62088	1.8404	.40136

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	12.000							.48000	
Low Limit	8.0000							.32000	

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.21186	.19570	.20682	.37765	.42020	.09793	.50886	.11095
Stddev	.00023	.00112	.00103	.00044	.00108	.00004	.00172	.00256
%RSD	.10903	.57486	.49847	.11571	.25594	.04025	.33827	2.3119

#1	.21202	.19649	.20755	.37796	.42096	.09790	.51008	.11276
#2	.21170	.19490	.20609	.37734	.41944	.09796	.50764	.10913

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6041.7	85817.	5366.9
Stddev	19.5	43.	81.9
%RSD	.32233	.05028	1.5264

#1	6027.9	85786.	5424.8
#2	6055.5	85847.	5309.0

Sample Name: 280-70256-c-5-b Acquired: 6/16/2015 4:53:52 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 281110 6010B T

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00021	.01576	.00318	.66031	.08071	.00011	.00213	29.701	.00072
Stddev	.00011	.00093	.00053	.00065	.00000	.00006	.00032	.127	.00004
%RSD	53.015	5.8887	16.576	.09843	.00304	54.012	14.977	.42808	5.3839
#1	.00029	.01510	.00281	.66077	.08071	.00007	.00235	29.791	.00075
#2	.00013	.01641	.00356	.65985	.08071	.00015	.00190	29.611	.00069

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00351	.00045	.00782	.39533	3.1977	.28985	6.8474	.18339	.01240
Stddev	.00023	.00009	.00003	.00365	.0174	.00160	.0144	.00018	.00018
%RSD	6.5530	19.888	.42579	.92237	.54284	.55317	.20978	.09581	1.4715
#1	.00367	.00038	.00779	.39791	3.2099	.28871	6.8576	.18352	.01227
#2	.00335	.00051	.00784	.39276	3.1854	.29098	6.8372	.18327	.01253

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	238.32	.01186	.04177	-.00132	41.956	-.00163	-.00318	1.2131	-.00012
Stddev	.71	.00011	.00131	.00086	.011	.00142	.00455	.0087	.00037
%RSD	.29840	.95757	3.1252	65.257	.02578	86.774	143.37	.71565	309.08
#1	238.82	.01178	.04085	-.00071	41.963	-.00063	.00004	1.2070	-.00038
#2	237.81	.01194	.04270	-.00194	41.948	-.00263	-.00640	1.2193	.00014

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50905	.00099	.00030	-.00057	-.01417	.00027	.04347	.00357
Stddev	.00136	.00006	.00017	.00111	.00717	.00024	.00049	.00258
%RSD	.26739	6.4744	56.790	195.18	50.586	86.830	1.1221	72.217
#1	.51001	.00094	.00018	-.00135	-.00910	.00010	.04313	.00539
#2	.50808	.00103	.00042	.00022	-.01924	.00044	.04382	.00174

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6177.8	88392.	5427.0
Stddev	32.1	80.	19.2
%RSD	.51925	.09065	.35388
#1	6200.5	88336.	5413.4
#2	6155.2	88449.	5440.5

Sample Name: 280-70256-c-5-bSD@5 Acquired: 6/16/2015 4:56:29 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 281110 6010B T

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00024	.00704	-.00006	.14054	.01632	.00006	.00036	6.0676	.00020
Stddev	.00024	.00006	.00062	.00030	.00003	.00000	.00002	.0151	.00003
%RSD	100.49	.89960	975.31	.21284	.17556	1.3047	4.2194	.24866	15.887

#1	-.00041	.00699	.00037	.14076	.01630	.00006	.00037	6.0570	.00023
#2	-.00007	.00708	-.00050	.14033	.01634	.00006	.00035	6.0783	.00018

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00067	.00021	.00218	.07991	.62137	.06260	1.4389	.03734	.00260
Stddev	.00011	.00004	.00012	.00200	.01272	.00282	.0009	.00006	.00025
%RSD	16.654	17.645	5.3476	2.5014	2.0463	4.5069	.05956	.15801	9.5818

#1	.00060	.00018	.00226	.08133	.61238	.06060	1.4395	.03738	.00243
#2	.00075	.00023	.00209	.07850	.63036	.06459	1.4383	.03730	.00278

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.942	.00277	.01048	-.00118	8.4317	-.00287	-.00177	.24449	-.00064
Stddev	.158	.00026	.00069	.00043	.0191	.00038	.00017	.00923	.00025
%RSD	.31556	9.5306	6.6171	36.562	.22634	13.253	9.8360	3.7753	38.400

#1	50.054	.00259	.00999	-.00148	8.4452	-.00260	-.00165	.23796	-.00082
#2	49.831	.00296	.01097	-.00087	8.4182	-.00314	-.00189	.25101	-.00047

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10461	.00022	.00012	-.00054	.00716	-.00032	.00605	.00124
Stddev	.00013	.00135	.00040	.00012	.00108	.00031	.00079	.00149
%RSD	.12797	627.59	340.90	21.699	15.020	98.383	13.135	120.37

#1	.10451	-.00074	-.00016	-.00046	.00792	-.00054	.00549	.00229
#2	.10470	.00117	.00040	-.00063	.00640	-.00010	.00661	.00018

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6395.7	92522.	5438.0
Stddev	1.3	30.	5.1
%RSD	.01991	.03288	.09415

#1	6394.8	92501.	5434.3
#2	6396.6	92544.	5441.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .21189	.40511	.82919	.87299	2.6919	.00979	4.1743	40.367	22526
Stddev	.00037	.00003	.00077	.00160	.0068	.00009	.00355	.152	.00058
%RSD	.17444	.00799	.09306	.18278	.25234	.88885	.85021	.37654	.25529
#1	.21163	.40514	.82973	.87412	2.6967	.00972	.41994	40.474	22567
#2	.21215	.40509	.82864	.87186	2.6871	.00985	.41492	40.259	22486
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.10000								
Low Limit	-.01000								

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10606	1.0718	.48327	.58433	13.895	.51887	16.262	.28747	.22713
Stddev	.00045	.0018	.00055	.00514	.034	.00032	.029	.00040	.00036
%RSD	.41971	.17182	.11397	.88024	.24203	.06103	.17583	.13936	.15868
#1	.10638	1.0731	.48366	.58797	13.918	.51865	16.282	.28776	.22739
#2	.10575	1.0705	.48288	.58070	13.871	.51910	16.242	.28719	.22688
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	255.14	.11401	2.1974	1.0820	43.073	.09565	.61982	3.1244	.40101
Stddev	.82	.00021	.0056	.0032	.199	.00285	.00176	.0200	.00144
%RSD	.32190	.18450	.25376	.29077	.46128	2.9843	.28413	.64112	.35986
#1	255.72	.11387	2.2013	1.0842	43.213	.09767	.61857	3.1103	.40203
#2	254.56	.11416	2.1935	1.0798	42.932	.09363	.62106	3.1386	.39999
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.73742	.20004	.20655	.37911	.38193	.09891	.54806	.11267
Stddev	.00161	.00035	.00069	.00319	.01362	.00010	.00108	.00358
%RSD	.21840	.17254	.33370	.84228	3.5672	.10344	.19723	3.1735
#1	.73856	.20029	.20704	.38136	.39156	.09883	.54882	.11014
#2	.73628	.19980	.20606	.37685	.37229	.09898	.54729	.11520
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6053.6	86178.	5228.4
Stddev	10.6	569.	20.7
%RSD	.17530	.66049	.39634
#1	6061.1	85776.	5213.8
#2	6046.1	86581.	5243.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W_21992	.42143	.86911	.91233	2.7789	.01019	.43138	41.701	.23495
Stddev	.00006	.00011	.00209	.00015	.0024	.00010	.00230	.091	.00036
%RSD	.02515	.02652	.23991	.01638	.08750	.93604	.53370	.21722	.15163

#1	.21996	.42135	.86763	.91222	2.7806	.01026	.42975	41.765	.23520
#2	.21988	.42151	.87058	.91243	2.7772	.01012	.43301	41.637	.23470

Check ?	Chk Warn	Chk Pass							
High Limit	.10000								
Low Limit	-.01000								

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.11025	1.1162	.50128	.60893	14.336	.53690	16.868	.29855	.23694
Stddev	.00021	.0002	.00117	.00532	.077	.00262	.057	.00086	.00076
%RSD	.19360	.01542	.23299	.87336	.53462	.48710	.33779	.28851	.32008

#1	.11040	1.1163	.50045	.60517	14.390	.53506	16.827	.29794	.23747
#2	.11010	1.1160	.50211	.61269	14.282	.53875	16.908	.29916	.23640

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	264.33	.11853	2.2995	1.1283	44.991	.09872	.64625	3.2360	.41882
Stddev	.10	.00019	.0042	.0042	.037	.00214	.00039	.0113	.00054
%RSD	.03878	.15760	.18188	.37319	.08185	2.1696	.06008	.34926	.12806

#1	264.26	.11840	2.3024	1.1313	45.017	.09721	.64653	3.2440	.41844
#2	264.40	.11867	2.2965	1.1254	44.965	.10024	.64598	3.2280	.41920

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.76242	.20876	.21525	.39465	.38616	.10292	.57098	.11590
Stddev	.00035	.00167	.00093	.00075	.03047	.00036	.00365	.00044
%RSD	.04585	.79863	.43385	.19015	7.8907	.35365	.63904	.38030

#1	.76267	.20994	.21459	.39412	.40771	.10267	.56840	.11559
#2	.76217	.20758	.21591	.39518	.36462	.10318	.57356	.11621

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6063.2	86577.	5357.4
Stddev	3.2	446.	16.8
%RSD	.05290	.51490	.31351

#1	6060.9	86892.	5369.3
#2	6065.5	86262.	5345.5

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0241	49.185	.00190	.00840	.00005	.00008	1.0718	.02374	-.00126	.00089	.00048	.01609	47.259
Stddev	.00029	.192	.00176	.00046	.00017	.00001	.0055	.00495	.00004	.00036	.00007	.00030	.047
%RSD	12.239	.39028	92.479	5.5091	323.42	13.545	.50847	20.860	3.2597	40.419	15.657	1.8839	.09847

#1	-.00220	49.049	.00066	.00872	-.00007	.00007	1.0679	.02024	-.00128	.00063	.00053	.01587	47.292
#2	-.00261	49.320	.00315	.00807	.00017	.00009	1.0756	.02724	-.00123	.00114	.00042	.01630	47.226

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.02789	.00391	.00515	.00143	-.00127	271.03	.00188	.00869	-.00104	5.3052	.01474	.00054	-.01371
Stddev	.02070	.00550	.00130	.00005	.00008	.38	.00020	.00157	.00110	.0006	.00022	.00219	.01446
%RSD	74.208	140.72	25.322	3.7052	5.9900	.13940	10.465	18.093	106.02	.01069	1.4869	407.54	105.46

#1	-.04253	.00779	.00423	.00139	-.00121	270.77	.00174	.00758	-.00026	5.3056	.01459	.00208	-.02394
#2	-.01326	.00002	.00607	.00147	-.00132	271.30	.00202	.00981	-.00182	5.3048	.01490	-.00101	-.00349

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00080	.00068	4.9852	.00332	-.00080	10.087	.00097	-.00078	.20216
Stddev	.00105	.00004	.0005	.00042	.00031	.035	.00044	.00007	.00350
%RSD	132.43	5.2514	.01019	12.717	38.877	.34238	45.287	8.5285	1.7328

#1	.00154	.00065	4.9849	.00362	-.00102	10.062	.00066	-.00073	.20464
#2	.00005	.00070	4.9856	.00302	-.00058	10.111	.00129	-.00082	.19968

Check ?	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6143.9	87808.	5378.0
Stddev	6.0	190.	20.4
%RSD	.09719	.21637	.37923

#1	6139.6	87673.	5392.4
#2	6148.1	87942.	5363.6

Sample Name: ccv-3323216 Acquired: 6/16/2015 5:06:44 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.53443	.52388	1.0330	.52293	.53848	.48425	-.04708	4.9552	.51382	.52729	.52100	.53372
Stddev	.00619	.00089	.0020	.00010	.00306	.00175	.00296	.0328	.00068	.00026	.00047	.00513
%RSD	1.1580	.16945	.19792	.01851	.56735	.36129	6.2936	.66217	.13216	.04986	.08989	.96180

#1	.53881	.52326	1.0315	.52286	.53632	.48301	-.04498	4.9320	.51334	.52710	.52134	.53735
#2	.53005	.52451	1.0344	.52300	.54064	.48548	-.04917	4.9784	.51430	.52747	.52067	.53009

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.3060	52.595	F 1.1122	19.655	.50760	.52313	F 5.8979	.52779	1.0438	1.0332	.04337	1.0471
Stddev	.0053	.324	.0049	.137	.00404	.00004	.0106	.00014	.0033	.0005	.00004	.0000
%RSD	.22753	.61694	.44103	.69798	.79577	.00816	.18023	.02670	.31995	.04820	.08791	.00132

#1	2.3023	52.366	1.1087	19.752	.51046	.52316	5.8904	.52769	1.0461	1.0329	.04340	1.0471
#2	2.3097	52.825	1.1157	19.558	.50474	.52310	5.9054	.52789	1.0414	1.0336	.04335	1.0471

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value			1.0000				5.0000					
Range			10.000%				10.000%					

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0384	4.6793	1.0323	.53835	.02205	.51895	1.0467	-.02578	.50113	.49369	.51212
Stddev	.0003	.0009	.0004	.00243	.00182	.00390	.0020	.02512	.00462	.00405	.00553
%RSD	.02756	.01957	.03905	.45205	8.2471	.75086	.19440	97.455	.92093	.81977	1.0796

#1	1.0387	4.6800	1.0326	.53663	.02333	.52171	1.0453	-.04354	.50439	.49655	.50821
#2	1.0382	4.6787	1.0320	.54007	.02076	.51620	1.0482	-.00801	.49786	.49082	.51603

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6286.2	90178.	5378.9
Stddev	9.2	481.	12.5
%RSD	.14631	.53361	.23166

#1	6279.7	89838.	5387.7
#2	6292.7	90518.	5370.1

Sample Name: CCB Acquired: 6/16/2015 5:09:12 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0011	.00143	-0.0048	F .00489	-0.0040	.00007	.00208	.00558	.00019	-0.0029	.00006	.00012
Stddev	.00036	.00031	.00092	.00033	.00005	.00001	.00059	.00598	.00014	.00010	.00008	.00002
%RSD	331.73	21.755	192.43	6.8041	12.610	10.613	28.554	107.15	76.216	33.273	122.19	17.507

#1	-0.00036	.00165	-0.00112	.00512	-0.00043	.00007	.00166	.00135	.00009	-0.00022	.00001	.00011
#2	.00015	.00121	.00017	.00465	-0.00036	.00008	.00250	.00981	.00029	-0.00036	.00012	.00014

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.00312								
Low Limit				-.00312								

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00008	.04297	W .00308	.00705	.00006	.00087	F .57399	.00009	.00167	-0.00150	.04347	-0.00098
Stddev	.00046	.00160	.00075	.00256	.00000	.00018	.00261	.00026	.00051	.00027	.00267	.00075
%RSD	604.09	3.7216	24.363	36.352	5.8319	20.418	.45427	275.91	30.668	18.245	6.1366	76.250

#1	-0.00040	.04411	.00255	.00524	.00007	.00075	.57584	.00027	.00204	-0.00130	.04535	-0.00045
#2	.00025	.04184	.00361	.00886	.00006	.00100	.57215	-0.00009	.00131	-0.00169	.04158	-0.00150

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit			.00261				.20152					
Low Limit			-.00261				-.20152					

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00427	-0.00821	-0.00036	.00007	.00097	.00031	-0.00212	.00838	-0.00094	-0.00359	W .00269
Stddev	.00075	.02326	.00011	.00004	.00105	.00001	.00084	.02188	.00051	.00029	.00009
%RSD	17.588	283.42	30.104	55.511	108.34	3.5207	39.741	261.04	53.821	7.9761	3.3262

#1	.00480	.00824	-0.00028	.00004	.00023	.00030	-0.00153	-0.00709	-0.00130	-0.00379	.00262
#2	.00374	-.02465	-0.00044	.00010	.00171	.00032	-0.00272	.02385	-0.00059	-0.00339	.00275

Check ?	Chk Pass	Chk Warn	Chk Pass									
High Limit											.00238	
Low Limit											-.00238	

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6406.7	92803.	5376.3
Stddev	27.3	51.	6.3
%RSD	.42556	.05471	.11641

#1	6387.4	92839.	5380.7
#2	6426.0	92767.	5371.9

Sample Name: CCVL3329632 Acquired: 6/16/2015 5:11:53 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01126	.11182	.01771	.11276	.01084	.00104	F .13644	.21289	.00566	.01104	.01105	W .01817
Stddev	.00020	.00036	.00005	.00040	.00019	.00004	.00374	.00117	.00016	.00024	.00004	.00004
%RSD	1.7333	.31845	.27269	.35881	1.7663	3.7724	2.7407	.54837	2.8648	2.1632	.37457	.20830

#1	.01112	.11207	.01774	.11247	.01098	.00107	.13908	.21371	.00578	.01121	.01108	.01819
#2	.01139	.11157	.01767	.11305	.01071	.00102	.13379	.21206	.00555	.01087	.01102	.01814

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn					
Value							.10000					.01500
Range							30.000%					20.000%

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09090	3.3166	F .01418	.22382	.01074	.02136	F 1.6712	.04524	3.2273	.00871	.04207	.00890
Stddev	.00210	.0432	.00171	.00240	.00010	.00022	.0054	.00015	.0060	.00049	.00383	.00063
%RSD	2.3152	1.3036	12.062	1.0743	.90082	1.0124	.32295	.32902	.18522	5.5789	9.1110	7.1011

#1	.08941	3.2860	.01297	.22212	.01081	.02121	1.6674	.04534	3.2230	.00906	.03936	.00845
#2	.09238	3.3471	.01539	.22552	.01067	.02151	1.6750	.04513	3.2315	.00837	.04478	.00934

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value			.01000				1.0000					
Range			30.000%				30.000%					

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01625	4.7839	.10971	.01133	.01635	.01093	.01664	.05507	.00919	.01963	.01769
Stddev	.00139	.01057	.00044	.00008	.00075	.00007	.00018	.03280	.00017	.00010	.00009
%RSD	8.5555	2.2092	.39906	.68326	4.5930	.61870	1.0574	59.563	1.8042	.52929	.49552

#1	.01723	.48586	.11002	.01139	.01688	.01098	.01652	.03188	.00907	.01970	.01763
#2	.01527	.47092	.10940	.01128	.01581	.01088	.01677	.07827	.00931	.01956	.01776

Check ?	Chk Pass										
Value											
Range											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6544.9	94730.	5503.6
Stddev	12.6	130.	18.9
%RSD	.19220	.13771	.34396

#1	6536.0	94638.	5490.2
#2	6553.8	94823.	5517.0

Sample Name: Ib 280-281227/1-b Acquired: 6/16/2015 5:14:30 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: 6/12 Custom ID2: Custom ID3:
 Comment: 281507 6010B T

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0027	.00561	.00054	.00395	-0.00071	.00008	.00121	.01378	.00026
Stddev	.00056	.00111	.00160	.00022	.00036	.00007	.00088	.00295	.00009
%RSD	210.62	19.716	294.63	5.6471	50.997	81.833	72.580	21.390	34.661

#1	-0.00066	.00483	-0.00059	.00410	-0.00097	.00003	.00184	.01170	.00032
#2	.00013	.00639	.00168	.00379	-0.00045	.00013	.00059	.01586	.00020

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0022	.00002	.00095	.00079	-0.06412	.00212	.00414	.00048	.00027
Stddev	.00037	.00003	.00036	.00056	.04091	.00139	.00190	.00004	.00006
%RSD	164.56	105.72	38.426	71.414	63.806	65.408	45.972	7.4790	23.090

#1	.00004	.00001	.00069	.00039	-.03519	.00310	.00548	.00045	.00022
#2	-.00048	.00004	.00121	.00119	-.09304	.00114	.00279	.00050	.00031

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .52454	-0.0002	.00278	.00005	.04541	-0.00182	-0.00179	.01075	.00141
Stddev	.00774	.00005	.00100	.00047	.00424	.00086	.00200	.00462	.00007
%RSD	1.4750	253.74	35.862	850.67	9.3434	47.155	112.01	43.007	5.1974

#1	.51907	.00002	.00207	.00038	.04842	-.00121	-.00037	.00748	.00136
#2	.53001	-.00005	.00348	-.00027	.04241	-.00242	-.00320	.01401	.00146

Check ?	Chk Warn	Chk Pass							
High Limit	.50000								
Low Limit	-.50000								

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00011	.00119	.00019	-0.00263	-0.02964	-0.00074	-0.00265	.00418
Stddev	.00005	.00150	.00021	.00071	.02310	.00009	.00049	.00145
%RSD	47.963	126.08	110.02	27.017	77.950	11.946	18.575	34.656

#1	.00007	.00013	.00004	-.00313	-.01330	-.00080	-.00300	.00316
#2	.00015	.00225	.00034	-.00213	-.04597	-.00068	-.00230	.00521

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6469.9	94279.	5441.7
Stddev	7.6	125.	4.7
%RSD	.11692	.13244	.08659

#1	6475.3	94367.	5438.3
#2	6464.6	94191.	5445.0

Sample Name: lcs 280-281227/2-b Acquired: 6/16/2015 5:17:13 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281507 6010B T

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.22553	.41953	.85356	.21961	2.6865	.01000	.43463	10.114	.23597
Stddev	.00024	.00013	.00140	.00058	.0012	.00005	.00303	.017	.00054
%RSD	.10682	.03113	.16386	.26328	.04397	.54430	.69683	.16775	.22932
#1	.22570	.41944	.85257	.22002	2.6856	.00996	.43677	10.126	.23635
#2	.22536	.41963	.85455	.21920	2.6873	.01004	.43249	10.102	.23559

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10574	1.1046	.49434	.18647	10.888	.22953	9.5914	.10406	.22237
Stddev	.00021	.0002	.00011	.00008	.036	.00226	.0274	.00030	.00034
%RSD	.19438	.01784	.02245	.04236	.32795	.98451	.28545	.28938	.15395
#1	.10588	1.1044	.49442	.18642	10.862	.23113	9.6108	.10428	.22261
#2	.10559	1.1047	.49426	.18653	10.913	.22793	9.5720	.10385	.22213

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 342.34	.10522	2.2384	1.1287	.48348	.09751	.65295	F 1.9112	.41596
Stddev	.04	.00039	.0050	.0003	.00213	.00081	.00152	.0112	.00074
%RSD	.01305	.36699	.22439	.02472	.44147	.83384	.23315	.58558	.17882
#1	342.37	.10494	2.2349	1.1289	.48197	.09694	.65403	1.9033	.41543
#2	342.31	.10549	2.2420	1.1285	.48499	.09809	.65188	1.9191	.41649

Check ? High Limit Low Limit
 Chk Fail Chk Pass Chk Pass Chk Pass None Chk Pass Chk Pass Chk Fail Chk Pass
 12.000 .48000
 8.0000 .32000

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.22069	.20695	.21418	.39091	.37296	.10073	.53245	.11358
Stddev	.00031	.00191	.00087	.00083	.02378	.00002	.00032	.00108
%RSD	.14147	.92202	.40735	.21322	6.3748	.01951	.05995	.95159
#1	.22047	.20560	.21479	.39150	.38977	.10075	.53222	.11435
#2	.22092	.20830	.21356	.39032	.35614	.10072	.53267	.11282

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6093.0	86801.	5377.1
Stddev	14.8	82.	23.4
%RSD	.24239	.09497	.43477
#1	6103.5	86743.	5393.6
#2	6082.6	86859.	5360.6

Sample Name: 280-70379-a-1-b Acquired: 6/16/2015 5:19:50 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 281507 6010B T

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00003	.05988	.00740	.09258	.00689	.00009	.00197	51.757	.00060
Stddev	.00065	.00062	.00142	.00034	.00006	.00016	.00332	.161	.00025
%RSD	1993.8	1.0339	19.246	.37146	.81050	178.16	168.24	.31112	41.625

#1	-.00042	.06032	.00639	.09283	.00685	.00021	.00432	51.644	.00077
#2	.00049	.05944	.00841	.09234	.00693	-.00002	-.00037	51.871	.00042

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00068	.00069	.05250	.05639	3.8208	.00394	14.164	.36097	.00174
Stddev	.00010	.00018	.00031	.00307	.0358	.00102	.020	.00073	.00008
%RSD	14.255	26.403	.59441	5.4399	.93621	25.982	.14360	.20220	4.4237

#1	.00075	.00082	.05228	.05856	3.7955	.00322	14.149	.36045	.00180
#2	.00061	.00056	.05273	.05422	3.8461	.00467	14.178	.36148	.00169

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	297.67	.00525	34.552	.00197	10.554	-.00024	.00414	.57974	.00000
Stddev	.26	.00004	.063	.00086	.006	.00129	.00311	.00246	.00084
%RSD	.08737	.72906	.18131	43.762	.05340	539.44	75.267	.42504	77558.

#1	297.49	.00523	34.508	.00258	10.550	.00067	.00194	.58148	.00059
#2	297.86	.00528	34.597	.00136	10.558	-.00115	.00634	.57799	-.00059

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.13582	.00129	.00128	-.00022	-.00840	.00086	.09470	.00139
Stddev	.00051	.00153	.00019	.00104	.01651	.00056	.00121	.00048
%RSD	.37558	118.60	15.114	482.14	196.41	64.823	1.2801	34.541

#1	.13546	.00237	.00115	-.00095	.00327	.00125	.09384	.00105
#2	.13618	.00021	.00142	.00052	-.02008	.00047	.09556	.00173

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6109.7	87652.	5397.9
Stddev	10.2	50.	45.3
%RSD	.16684	.05653	.83934

#1	6116.9	87616.	5429.9
#2	6102.5	87687.	5365.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0018	.01218	.00112	.02104	.00094	.00005	.00119	10.358	.00019
Stddev	.00012	.00022	.00101	.00087	.00032	.00010	.00091	.021	.00025
%RSD	63.329	1.7929	90.042	4.1149	33.542	207.04	76.813	.20462	129.36

#1	-0.0010	.01202	.00041	.02165	.00072	.00012	.00054	10.373	.00037
#2	-0.0027	.01233	.00184	.02043	.00117	-.00002	.00183	10.343	.00002

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0001	.00026	.01140	.01384	.69271	.00419	2.9658	.07347	.00038
Stddev	.00008	.00001	.00039	.00069	.02255	.00259	.0024	.00013	.00026
%RSD	927.02	4.6139	3.3997	4.9693	3.2558	61.954	.08116	.18131	68.759

#1	-0.0007	.00025	.01113	.01433	.70866	.00602	2.9675	.07337	.00019
#2	.00005	.00026	.01167	.01335	.67676	.00235	2.9641	.07356	.00056

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	61.735	.00099	6.8760	-0.0082	2.0927	-0.00282	-0.00155	.12096	-0.0022
Stddev	.484	.00020	.0053	.00029	.0065	.00002	.00080	.00465	.00042
%RSD	.78411	20.044	.07769	35.225	.31271	.59779	51.275	3.8420	191.24

#1	61.393	.00085	6.8722	-.00103	2.0880	-.00280	-.00099	.11768	-.00051
#2	62.077	.00114	6.8798	-.00062	2.0973	-.00283	-.00211	.12425	.00008

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02731	.00181	.00059	.00037	-.00209	-0.00083	.01680	.00235
Stddev	.00015	.00106	.00004	.00032	.00750	.00051	.00002	.00208
%RSD	.55009	58.894	6.7427	87.070	358.27	61.107	.13615	88.698

#1	.02742	.00105	.00062	.00060	.00321	-.00047	.01678	.00382
#2	.02721	.00256	.00056	.00014	-.00740	-.00118	.01682	.00087

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6351.1	91431.	5434.3
Stddev	8.4	196.	12.4
%RSD	.13267	.21466	.22746

#1	6357.0	91570.	5443.0
#2	6345.1	91292.	5425.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .18336	.40597	.70594	.25307	2.1931	.00828	.35855	53.415	.19194
Stddev	.00090	.00079	.00047	.00013	.0036	.00003	.00047	.097	.00045
%RSD	.49250	.19545	.06721	.05229	.16291	.39874	.12991	.18200	.23703
#1	.18400	.40653	.70627	.25298	2.1957	.00830	.35822	53.484	.19226
#2	.18272	.40541	.70560	.25317	2.1906	.00825	.35888	53.346	.19162
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.10000								
Low Limit	-.01000								

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08680	.90130	.44800	.20534	12.161	.18693	20.372	.40038	.18224
Stddev	.00033	.00093	.00041	.00146	.086	.00055	.025	.00007	.00040
%RSD	.38270	.10358	.09231	.70884	.70495	.29560	.12364	.01675	.22045
#1	.08704	.90064	.44771	.20637	12.222	.18654	20.354	.40033	.18252
#2	.08657	.90196	.44829	.20431	12.101	.18732	20.390	.40042	.18196
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	269.15	.09040	31.818	.91750	9.5391	.08097	.52677	2.1015	.33924
Stddev	.49	.00001	.012	.00011	.0024	.00025	.00306	.0223	.00128
%RSD	.18039	.00697	.03689	.01225	.02570	.30937	.58145	1.0638	.37866
#1	269.49	.09040	31.810	.91758	9.5408	.08079	.52893	2.0856	.33833
#2	268.81	.09039	31.826	.91742	9.5374	.08115	.52460	2.1173	.34014
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.29727	.16868	.17635	.32151	.31810	.08465	.50975	.09136
Stddev	.00014	.00329	.00039	.00111	.05568	.00048	.00060	.00293
%RSD	.04672	1.9529	.22062	.34372	17.506	.56773	.11716	3.2062
#1	.29737	.16635	.17663	.32073	.35747	.08431	.50933	.09343
#2	.29717	.17101	.17608	.32229	.27872	.08499	.51017	.08929
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6074.2	87173.	5419.5
Stddev	7.0	14.	15.3
%RSD	.11530	.01655	.28255
#1	6079.2	87163.	5408.7
#2	6069.3	87183.	5430.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .21309	.46770	.81466	.29179	2.5421	.00956	4.0960	61.929	22364
Stddev	.00020	.00002	.00819	.00019	.0134	.00004	.00235	.245	.00009
%RSD	.09202	.00525	1.0048	.06450	.52662	.43240	.57424	.39587	.03809

#1	.21295	.46772	.80888	.29193	2.5327	.00953	.40794	61.756	22370
#2	.21323	.46768	.82045	.29166	2.5516	.00959	.41127	62.103	22358

Check ?	Chk Warn	Chk Pass							
High Limit	.10000								
Low Limit	-.01000								

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10047	1.0429	.51793	.23079	14.235	.21672	23.641	.46437	.21153
Stddev	.00032	.00008	.00063	.00059	.055	.00141	.004	.00014	.00013
%RSD	.31890	.07162	.12178	.25495	.38431	.64921	.01674	.02994	.06148

#1	.10024	1.0424	.51837	.23038	14.197	.21573	23.644	.46447	.21143
#2	.10070	1.0434	.51748	.23121	14.274	.21772	23.638	.46427	.21162

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	311.73	.10420	36.811	1.0643	11.074	.09634	.61931	2.4729	.39146
Stddev	1.48	.00049	.011	.0026	.008	.00342	.00451	.0143	.00003
%RSD	.47625	.47153	.02885	.24511	.07462	3.5503	.72887	.57753	.00705

#1	310.68	.10385	36.803	1.0624	11.069	.09876	.61612	2.4830	.39144
#2	312.78	.10454	36.818	1.0661	11.080	.09392	.62250	2.4628	.39148

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.34250	.19443	.20495	.36931	.37653	.09816	.59141	.10575
Stddev	.00185	.00009	.00029	.00090	.01880	.00020	.00096	.00172
%RSD	.53906	.04416	.14121	.24422	4.9922	.20450	.16283	1.6284

#1	.34119	.19449	.20475	.36867	.36323	.09802	.59209	.10697
#2	.34381	.19437	.20516	.36994	.38982	.09830	.59073	.10454

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6038.4	86353.	5362.1
Stddev	1.5	82.	11.2
%RSD	.02492	.09496	.20974

#1	6039.5	86411.	5370.1
#2	6037.3	86295.	5354.2

Sample Name: 280-70379-a-2-b Acquired: 6/16/2015 5:30:06 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 281507 6010B T

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00006	.00289	.00455	.09231	.05846	.00006	.00070	190.83	.00066
Stddev	.00067	.00018	.00078	.00039	.00035	.00004	.00308	.75	.00016
%RSD	1183.2	6.2817	17.200	.42368	.60390	66.812	437.52	.39063	24.293
#1	.00042	.00276	.00400	.09203	.05871	.00009	-.00147	190.31	.00054
#2	-.00053	.00302	.00510	.09259	.05821	.00003	.00288	191.36	.00077

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00186	.00407	.02008	.00127	22.257	.01750	2.5060	.12679	.01684
Stddev	.00018	.00016	.00051	.00009	.079	.0102	.0015	.00007	.00011
%RSD	9.6948	3.9476	2.5613	6.8719	.35520	5.8456	.06131	.05135	.63582
#1	.00199	.00418	.02045	.00120	22.201	.01678	2.5071	.12674	.01692
#2	.00174	.00396	.01972	.00133	22.313	.01823	2.5049	.12683	.01677

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	310.76	.00514	.05740	-.00113	22.185	.00221	.04155	3.1224	-.00054
Stddev	1.36	.00039	.00033	.00113	.028	.00029	.00140	.0361	.00015
%RSD	.43776	7.5703	.57456	99.868	.12452	13.151	3.3659	1.1548	27.373
#1	309.80	.00541	.05764	-.00193	22.204	.00242	.04254	3.0969	-.00065
#2	311.72	.00486	.05717	-.00033	22.165	.00201	.04056	3.1479	-.00044

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.85292	.00300	.00006	.00193	-.01632	.03828	.00009	.00257
Stddev	.00281	.00183	.00018	.00023	.02584	.00024	.00038	.00156
%RSD	.32925	61.197	285.31	12.132	158.26	.61488	449.23	60.427
#1	.85093	.00170	.00019	.00210	.00194	.03845	-.00019	.00147
#2	.85490	.00430	-.00007	.00177	-.03459	.03812	.00036	.00367

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5957.3	85219.	5339.8
Stddev	9.5	71.	46.8
%RSD	.16004	.08386	.87629
#1	5950.6	85269.	5372.9
#2	5964.1	85168.	5306.7

Sample Name: 280-70379-a-3-b Acquired: 6/16/2015 5:32:43 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 281507 6010B T

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0023	.00590	.00533	.13145	.04442	.00003	-0.00004	192.24	.00125
Stddev	.00003	.00046	.00006	.00001	.00027	.00006	.00013	.07	.00028
%RSD	12.439	7.7092	1.0355	.01141	.61553	201.53	337.07	.03487	22.411

#1	-0.0021	.00558	.00537	.13144	.04423	-0.0001	-0.0013	192.20	.00145
#2	-0.0025	.00623	.00529	.13147	.04461	.00007	.00005	192.29	.00105

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00227	.00053	.00868	.26965	19.295	.01656	1.5820	.31082	.01547
Stddev	.00005	.00002	.00000	.00001	.061	.00203	.0013	.00046	.00010
%RSD	2.2597	3.0350	.02972	.00523	.31742	12.280	.08499	.14799	.64994

#1	.00231	.00054	.00869	.26966	19.252	.01800	1.5830	.31049	.01554
#2	.00224	.00052	.00868	.26964	19.338	.01512	1.5811	.31114	.01540

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	287.83	.00966	.03019	-0.00045	25.311	.00149	.02861	2.9850	-0.00040
Stddev	.11	.00047	.00164	.00128	.041	.00031	.00048	.0146	.00028
%RSD	.03890	4.8330	5.4458	284.67	.16370	20.960	1.6831	.49052	70.515

#1	287.90	.00933	.02903	.00046	25.341	.00127	.02827	2.9953	-0.00020
#2	287.75	.00999	.03136	-0.00136	25.282	.00171	.02895	2.9746	-0.00060

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.82292	.00435	.00033	.00339	-.03537	.01433	.00136	.00394
Stddev	.00006	.00086	.00010	.00002	.02209	.00066	.00004	.00085
%RSD	.00690	19.693	29.052	.49331	62.456	4.6211	2.8309	21.652

#1	.82296	.00495	.00040	.00340	-.01975	.01480	.00133	.00454
#2	.82288	.00374	.00026	.00338	-.05099	.01386	.00139	.00333

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6005.2	85899.	5360.5
Stddev	2.8	69.	5.4
%RSD	.04587	.08071	.10044

#1	6003.3	85948.	5364.3
#2	6007.2	85850.	5356.7

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00130	49.307	-0.00500	.00522	-0.00017	-0.00000	1.0648	.04916	-0.00133	.00089	.00044	.01658	47.020
Stddev	.00007	.135	.00123	.00049	.00008	.00011	.0027	.00425	.00002	.00013	.00000	.00024	.053
%RSD	5.0874	.27377	24.512	9.3620	48.117	2510.4	.25807	8.6487	1.4265	14.214	.04014	1.4220	.11293

#1	-0.00134	49.211	-0.00587	.00557	-0.00011	-0.00008	1.0667	.04616	-0.00134	.00098	.00044	.01641	47.058
#2	-0.00125	49.402	-0.00413	.00488	-0.00023	.00007	1.0628	.05217	-0.00132	.00080	.00044	.01675	46.983

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00686	.00390	.00261	.00149	-0.00185	273.11	.00185	.00693	-0.00079	5.2600	.01441	.00018	.00253
Stddev	.01919	.00020	.00028	.00007	.00008	.10	.00005	.00274	.00125	.0055	.00221	.00174	.00227
%RSD	279.91	5.1386	10.895	4.3939	4.0542	.03644	2.7545	39.566	159.10	.10493	15.352	979.19	89.595

#1	.00671	.00404	.00241	.00144	-0.00180	273.18	.00181	.00886	-0.00167	5.2561	.01597	-0.00105	.00093
#2	-.02043	.00376	.00281	.00154	-0.00191	273.04	.00189	.00499	.00010	5.2639	.01285	.00140	.00414

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00083	.00052	4.9955	.00297	-0.00037	10.098	.00117	-0.00036	.19844
Stddev	.00085	.00005	.0136	.00023	.00080	.105	.00016	.00020	.00169
%RSD	102.35	8.7963	.27180	7.8328	215.21	1.0421	13.425	54.828	.85234

#1	.00023	.00048	4.9859	.00314	.00019	10.024	.00128	-0.00050	.19724
#2	.00143	.00055	5.0051	.00281	-0.00094	10.173	.00106	-0.00022	.19963

Check ?	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value									
Range									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6145.6	87200.	5300.8
Stddev	3.6	389.	24.4
%RSD	.05902	.44628	.46107

#1	6148.1	87475.	5318.0
#2	6143.0	86924.	5283.5

Sample Name: ccv-3323216 Acquired: 6/16/2015 5:37:54 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.53149	.52622	1.0358	.52061	F .55024	.48840	-.04707	4.9777	.51722	.52860	.52269	.53035
Stddev	.00016	.00049	.0001	.00082	.00058	.00102	.00106	.0107	.00018	.00094	.00024	.00084
%RSD	.03022	.09353	.00478	.15657	.10464	.20949	2.2568	.21506	.03460	.17757	.04583	.15788

#1	.53137	.52587	1.0358	.52119	.55064	.48912	-.04782	4.9702	.51735	.52793	.52252	.53095
#2	.53160	.52657	1.0357	.52003	.54983	.48768	-.04632	4.9853	.51709	.52926	.52285	.52976

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass				
Value					.50000							
Range					10.000%							

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.3163	53.020	F 1.1289	19.727	.50796	.52461	F 5.8936	.52854	1.0459	1.0390	.02856	1.0510
Stddev	.0190	.059	.0002	.012	.00082	.00030	.0091	.00059	.0007	.0012	.00165	.0020
%RSD	.82139	.11099	.02154	.06115	.16115	.05676	.15504	.11147	.06522	.11233	5.7753	.18843

#1	2.3028	52.978	1.1290	19.719	.50738	.52440	5.9000	.52813	1.0464	1.0382	.02973	1.0524
#2	2.3297	53.061	1.1287	19.736	.50854	.52482	5.8871	.52896	1.0454	1.0398	.02739	1.0496

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value			1.0000				5.0000					
Range			10.000%				10.000%					

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0390	4.6992	1.0359	.54343	.02033	.52183	1.0546	-.01532	.49934	.49749	.51072
Stddev	.0005	.0462	.0008	.00029	.00146	.00025	.0006	.00946	.00036	.00061	.00082
%RSD	.04420	.98336	.07707	.05349	7.1713	.04756	.06191	61.730	.07111	.12240	.15966

#1	1.0387	4.6665	1.0364	.54363	.02136	.52166	1.0551	-.02201	.49959	.49706	.51130
#2	1.0393	4.7318	1.0353	.54322	.01930	.52201	1.0542	-.00863	.49909	.49792	.51015

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6288.5	90047.	5280.0
Stddev	11.0	92.	5.3
%RSD	.17429	.10209	.09983

#1	6296.2	89982.	5276.3
#2	6280.7	90112.	5283.7

Sample Name: CCB Acquired: 6/16/2015 5:40:21 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0025	-0.0095	-0.0086	W .00308	-0.0022	.00005	.00102	.00271	.00025	-0.0031	.00018	.00042
Stddev	.00025	.00004	.00213	.00009	.00015	.00001	.00234	.00262	.00018	.00063	.00003	.00038
%RSD	99.573	4.5526	248.29	2.9730	69.269	26.888	228.67	96.614	71.590	204.43	18.793	89.116

#1	-0.0007	-0.0092	-0.0236	.00301	-0.0033	.00004	-0.0063	.00086	.00037	-0.0076	.00016	.00016
#2	-0.0042	-0.0098	.00065	.00314	-0.0011	.00006	.00267	.00456	.00012	.00014	.00021	.00069

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.00156								
Low Limit				-.00156								

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00336	-0.00607	W .00368	.00249	-0.0001	.00084	F .43525	.00027	.00044	-0.00194	.02890	-0.00110
Stddev	.00108	.01351	.00220	.00134	.00000	.00008	.00781	.00002	.00098	.00054	.00359	.00109
%RSD	32.274	222.54	59.640	53.836	13.754	9.1322	1.7940	7.1319	223.53	28.001	12.438	99.740

#1	-0.00413	-0.01562	.00213	.00154	-0.0001	.00078	.44077	.00025	.00114	-0.00232	.02636	-0.0032
#2	-0.00259	.00348	.00523	.00344	-0.0001	.00089	.42973	.00028	-0.00026	-0.00155	.03144	-0.00187

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit			.00261				.20152					
Low Limit			-.00261				-.20152					

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00054	-0.00855	-0.00036	.00017	.00244	.00004	-0.00075	.00496	-0.00110	-0.00341	W .00242
Stddev	.00125	.00393	.00014	.00008	.00150	.00000	.00091	.00871	.00013	.00006	.00191
%RSD	229.93	45.982	37.598	50.044	61.450	10.136	121.47	175.49	11.785	1.8522	78.997

#1	-0.00143	-0.00577	-0.00027	.00022	.00350	.00004	-0.00011	-0.00120	-0.00100	-0.00346	.00107
#2	.00034	-0.01133	-0.00046	.00011	.00138	.00005	-0.00139	.01112	-0.00119	-0.00337	.00377

Check ?	Chk Pass	Chk Warn	Chk Pass									
High Limit											.00238	
Low Limit											-.00238	

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6399.8	93228.	5286.9
Stddev	2.6	27.	6.6
%RSD	.04126	.02914	.12453

#1	6401.7	93209.	5282.2
#2	6398.0	93247.	5291.5

Sample Name: CCVL3329632 Acquired: 6/16/2015 5:43:03 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01126	.11578	.01587	.11093	.01124	.00112	F .13525	.21617	.00561	.01119	.01092	.01791
Stddev	.00001	.00037	.00066	.00026	.00008	.00009	.00029	.00270	.00012	.00027	.00005	.00027
%RSD	.12905	.31650	4.1726	.23246	.69805	7.7798	.21367	1.2482	2.1692	2.3714	.44593	1.5248

#1	.01127	.11552	.01634	.11111	.01129	.00106	.13505	.21426	.00570	.01100	.01088	.01772
#2	.01125	.11604	.01540	.11075	.01118	.00118	.13546	.21807	.00552	.01138	.01095	.01810

Check ?	Chk Pass	Chk Fail	Chk Pass									
Value							.10000					
Range							30.000%					

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09116	3.3412	F .01431	.22325	.01079	.02171	F 1.5800	.04548	3.2391	.00884	.02807	.01072
Stddev	.00031	.0063	.00058	.00011	.00002	.00007	.0089	.00021	.0075	.00088	.00246	.00005
%RSD	.33758	.18792	4.0610	.04743	.19126	.33442	.56581	.45573	.23080	9.9231	8.7529	.47530

#1	.09138	3.3456	.01390	.22317	.01081	.02166	1.5864	.04533	3.2338	.00946	.02981	.01076
#2	.09094	3.3367	.01472	.22332	.01078	.02176	1.5737	.04562	3.2444	.00822	.02634	.01069

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value			.01000				1.0000					
Range			30.000%				30.000%					

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01531	48816	.11013	.01149	.01607	.01095	.01709	F .10714	.00937	.01972	W .01918
Stddev	.00402	.00333	.00029	.00023	.00148	.00031	.00073	.02055	.00018	.00061	.00079
%RSD	26.252	.68215	.26684	2.0159	9.1811	2.8769	4.2458	19.183	1.9665	3.0791	4.1224

#1	.01247	.48580	.11034	.01166	.01711	.01073	.01761	.09261	.00950	.01929	.01862
#2	.01815	.49051	.10992	.01133	.01503	.01117	.01658	.12168	.00924	.02015	.01974

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Warn							
Value								.06000			.01500	
Range								30.000%			20.000%	

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6491.2	93894.	5355.8
Stddev	1.5	202.	26.8
%RSD	.02374	.21482	.50087

#1	6490.1	93751.	5336.8
#2	6492.3	94036.	5374.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0005	-0.01057	F .01420	F 1.4487	W .00872	.00012	-0.00315	F 421.39	.00015
Stddev	.00041	.00055	.00267	.0023	.00012	.00010	.00313	.18	.00021
%RSD	832.37	5.1649	18.831	.15685	1.3387	84.040	99.154	.04185	142.28

#1	.00024	-.01096	.01609	1.4471	.00880	.00005	-.00094	421.26	-.00000
#2	-.00034	-.01019	.01231	1.4503	.00863	.00020	-.00537	421.51	.00030

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Warn	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit			.01000	.01000	.00500			.20000	
Low Limit			-.01000	-.01000	-.00500			-.20000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00016	F .03237	.00362	.01865	F 73.780	F .40388	F 644.70	F .05855	F .04410
Stddev	.00010	.00010	.00001	.00069	.229	.00239	1.33	.00005	.00030
%RSD	64.962	.29659	.30255	3.7141	.31083	.59133	.20554	.09076	.69063

#1	.00023	.03244	.00363	.01816	73.618	.40557	645.64	.05858	.04431
#2	.00009	.03231	.00361	.01914	73.942	.40220	643.76	.05851	.04388

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail
High Limit		.01000			3.0000	.01000	.10000	.01000	.01000
Low Limit		-.01000			-3.0000	-.01000	-.10000	-.01000	-.01000

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2972.1	.00162	F .02885	F -.00484	F 2102.5	-0.00053	F .07189	F 20.480	-0.00275
Stddev	.3	.00005	.00073	.00092	.1	.00015	.00289	.035	.00055
%RSD	.00897	3.3514	2.5287	19.057	.00612	28.477	4.0138	.17132	20.021

#1	2971.9	.00166	.02833	-.00549	2102.5	-.00042	.07393	20.505	-.00314
#2	2972.3	.00158	.02937	-.00419	2102.4	-.00063	.06985	20.455	-.00236

Check ?	None	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Pass
High Limit			.01000	.00300	.10000		.01000	.10000	
Low Limit			-.01000	-.00300	-.10000		-.01000	-.10000	

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 8.6951	.00372	.00076	.00013	.03182	F .02656	-0.00077	.00066
Stddev	.1270	.00128	.00065	.00063	.03960	.00009	.00001	.00053
%RSD	1.4610	34.427	85.744	466.45	124.45	.33716	.83393	80.448

#1	8.7850	.00281	.00122	-.00031	.00382	.02663	-.00077	.00104
#2	8.6053	.00462	.00030	.00058	.05982	.02650	-.00078	.00029

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit	.01000					.01000		
Low Limit	-.01000					-.01000		

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5180.4	72881.	5034.4
Stddev	3.7	16.	4.3
%RSD	.07053	.02206	.08608

#1	5177.8	72869.	5031.4
#2	5183.0	72892.	5037.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00015	-0.01755	.01244	1.6177	.01576	.00001	-0.00170	404.49	.00037
Stddev	.00036	.00012	.00100	.0021	.00001	.00004	.00017	.50	.00011
%RSD	238.27	.69558	8.0160	.12853	.09101	401.34	10.160	.12262	29.601
#1	-0.00040	-0.01746	.01174	1.6162	.01575	.00004	-0.00158	404.85	.00029
#2	.00010	-0.01764	.01315	1.6191	.01577	-.00002	-0.00182	404.14	.00045

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00002	.00133	.00341	.02070	57.659	.36782	484.34	.00261	.18144
Stddev	.00036	.00005	.00000	.00028	.225	.00254	3.41	.00001	.00011
%RSD	1920.9	3.5936	.08365	1.3506	.39032	.69130	.70385	.53161	.06104
#1	-0.00027	.00129	.00341	.02050	57.818	.36603	481.93	.00260	.18152
#2	.00023	.00136	.00341	.02090	57.499	.36962	486.75	.00261	.18136

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 2602.2	.00139	.10273	W -.00371	F 1946.8	-.00274	.00948	14.709	-.00233
Stddev	12.4	.00016	.00057	.00393	.2	.00180	.00011	.067	.00016
%RSD	.47722	11.156	.55494	105.95	.01193	65.720	1.1336	.45416	6.7219
#1	2611.0	.00150	.10313	-.00649	1947.0	-.00402	.00941	14.757	-.00245
#2	2593.4	.00128	.10233	-.00093	1946.7	-.00147	.00956	14.662	-.00222

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00			10.000	200.00				
Low Limit	10.000			-.00300	-.02000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.9912	.00485	.00051	.00049	.00349	.02841	.00521	.00035
Stddev	.0968	.00003	.00056	.00029	.01539	.00035	.00015	.00033
%RSD	1.2111	.69790	108.79	59.272	440.99	1.2289	2.9494	94.663
#1	8.0596	.00483	.00090	.00070	.01438	.02816	.00510	.00058
#2	7.9227	.00487	.00012	.00029	-.00739	.02865	.00531	.00011

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5256.6	74002.	5056.8
Stddev	6.3	254.	16.8
%RSD	.11992	.34383	.33152
#1	5261.1	74182.	5044.9
#2	5252.2	73822.	5068.6

Sample Name: 160-12180-M-2-D SD@5 Acquired: 6/16/2015 5:52:14 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281101 6010B Q4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00004	-.00855	.00284	.34558	.00272	.00001	.00325	82.623	.00046
Stddev	.00055	.00040	.00296	.00029	.00002	.00002	.00115	.208	.00004
%RSD	1323.7	4.6838	104.30	.08388	.73731	141.36	35.502	.25132	7.8408
#1	-.00035	-.00827	.00074	.34538	.00271	.00003	.00406	82.770	.00049
#2	.00043	-.00884	.00493	.34579	.00274	.00000	.00243	82.476	.00043

Check ? High Limit Low Limit
Chk Pass Chk Pass

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00011	.00036	.00285	.00139	11.009	.07359	96.061	.00052	.03709
Stddev	.00029	.00004	.00008	.00175	.018	.00095	.187	.00004	.00010
%RSD	258.03	10.365	2.9730	126.04	.16708	1.2918	.19499	7.2274	.25708
#1	.00032	.00034	.00291	.00015	11.022	.07292	96.194	.00054	.03716
#2	-.00009	.00039	.00279	.00263	10.996	.07426	95.929	.00049	.03703

Check ? High Limit Low Limit
Chk Pass Chk Pass

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 509.06	.00066	.01930	-.00265	F 447.54	-.00039	-.00385	2.8885	-.00095
Stddev	.15	.00018	.00059	.00013	.19	.00307	.00019	.0399	.00069
%RSD	.02925	27.675	3.0434	4.7842	.04318	779.65	4.9769	1.3822	72.887
#1	509.16	.00053	.01888	-.00256	447.68	-.00256	-.00399	2.9167	-.00143
#2	508.95	.00079	.01971	-.00274	447.40	.00178	-.00372	2.8602	-.00046

Check ? High Limit Low Limit
Chk Warn Chk Pass Chk Pass Chk Pass Chk Fail Chk Pass Chk Pass Chk Pass Chk Pass

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.5970	.00117	.00052	.00145	.02536	.00563	-.00118	.00212
Stddev	.0019	.00034	.00009	.00146	.02698	.00017	.00061	.00188
%RSD	.12134	29.365	16.949	100.38	106.37	3.0889	52.240	88.541
#1	1.5984	.00141	.00046	.00042	.04444	.00550	-.00074	.00345
#2	1.5956	.00093	.00058	.00249	.00629	.00575	-.00161	.00079

Check ? High Limit Low Limit
Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5809.4	82495.	5124.5
Stddev	11.1	162.	4.4
%RSD	.19192	.19631	.08569
#1	5801.5	82380.	5121.4
#2	5817.3	82609.	5127.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05630	1.8106	1.1069	2.5682	2.2117	.04809	2.0569	450.93	.10421
Stddev	.00047	.0059	.0022	.0087	.0041	.00008	.0031	2.69	.00026
%RSD	.82861	.32490	.19548	.34040	.18573	.17484	.15238	.59569	.24584
#1	.05663	1.8064	1.1084	2.5620	2.2146	.04815	2.0546	452.83	.10403
#2	.05597	1.8147	1.1053	2.5744	2.2088	.04803	2.0591	449.03	.10440

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49359	.20237	.26693	.90235	W 115.66	1.5503	W 535.09	.50712	1.2475
Stddev	.00063	.00044	.00058	.00079	.16	.0005	.71	.00100	.0002
%RSD	.12783	.21661	.21683	.08789	.13490	.03133	.13298	.19702	.01311
#1	.49314	.20206	.26652	.90291	115.55	1.5500	535.59	.50641	1.2474
#2	.49403	.20268	.26734	.90179	115.77	1.5507	534.58	.50782	1.2476

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass
High Limit					100.00		500.00		
Low Limit					-.50000		-.10000		

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 2694.2	.48926	11.966	.44232	F 1968.6	.51820	2.2882	24.448	1.9054
Stddev	6.2	.00018	.000	.00147	2.7	.00248	.0027	.142	.0000
%RSD	.22883	.03719	.00360	.33197	.13680	.47807	.11643	.58211	.00206
#1	2698.6	.48939	11.965	.44128	1966.7	.51644	2.2901	24.549	1.9054
#2	2689.9	.48913	11.966	.44335	1970.5	.51995	2.2864	24.348	1.9053

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00				200.00				
Low Limit	10.000				-.02000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.1457	1.0362	1.0580	1.6107	1.9430	.54861	.50404	.55195
Stddev	.0691	.0036	.0011	.0009	.0131	.00095	.00062	.00157
%RSD	.75509	.34361	.10076	.05784	.67416	.17352	.12270	.28437
#1	9.1945	1.0337	1.0572	1.6100	1.9523	.54794	.50360	.55306
#2	9.0969	1.0388	1.0587	1.6113	1.9337	.54928	.50447	.55084

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5204.9	73073.	4965.9
Stddev	3.3	7.	34.9
%RSD	.06399	.00911	.70298
#1	5207.3	73069.	4941.2
#2	5202.6	73078.	4990.6

Sample Name: 160-12180-M-2-H MSD Acquired: 6/16/2015 5:58:21 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281101 6010B Q4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05673	1.8296	1.1113	2.6188	2.1638	.04839	2.0631	461.88	.10518
Stddev	.00085	.0011	.0053	.0009	.0001	.00012	.0053	3.62	.00040
%RSD	1.4915	.06030	.47291	.03470	.00605	.24080	.25751	.78448	.38102

#1	.05613	1.8304	1.1150	2.6182	2.1639	.04830	2.0668	464.44	.10546
#2	.05733	1.8288	1.1076	2.6195	2.1637	.04847	2.0593	459.31	.10489

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49416	.20281	.26823	.89831	W 118.31	1.5517	W 549.77	.51003	1.2585
Stddev	.00015	.00011	.00042	.00002	.39	.0011	1.61	.00006	.0001
%RSD	.03066	.05549	.15599	.00203	.32649	.07288	.29354	.01150	.00640

#1	.49427	.20273	.26794	.89830	118.04	1.5509	550.91	.51007	1.2585
#2	.49405	.20289	.26853	.89833	118.58	1.5525	548.62	.50999	1.2584

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass
High Limit					100.00		500.00		
Low Limit					-.50000		-.10000		

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 2763.6	.49024	12.011	.44449	F 2004.4	.52034	2.3040	24.940	1.9137
Stddev	3.8	.00004	.003	.00232	.6	.00245	.0044	.014	.0019
%RSD	.13801	.00806	.02577	.52162	.02924	.47065	.19189	.05679	.09820

#1	2760.9	.49021	12.013	.44613	2004.0	.51860	2.3072	24.930	1.9124
#2	2766.3	.49026	12.009	.44285	2004.8	.52207	2.3009	24.950	1.9151

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00				200.00				
Low Limit	10.000				-.02000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.3452	1.0379	1.0634	1.6156	2.0288	.55143	.50661	.55437
Stddev	.0023	.0020	.0022	.0039	.0573	.00122	.00194	.00251
%RSD	.02505	.19277	.20540	.23962	2.8254	.22132	.38250	.45252

#1	9.3436	1.0365	1.0649	1.6128	2.0694	.55230	.50798	.55260
#2	9.3469	1.0394	1.0618	1.6183	1.9883	.55057	.50524	.55615

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5178.7	72926.	5034.9
Stddev	8.1	35.	12.3
%RSD	.15591	.04761	.24520

#1	5184.4	72950.	5043.6
#2	5173.0	72901.	5026.2

Sample Name: 160-12180-M-2-D PDS Acquired: 6/16/2015 6:01:29 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 281101 6010B Q4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05333	.89181	.22564	1.6693	.12197	.04633	-.00969	409.73	.05142
Stddev	.00026	.00334	.00619	.0074	.00056	.00019	.00247	2.89	.00007
%RSD	.49134	.37444	2.7430	.44296	.46016	.41902	25.477	.70445	.13418

#1	.05314	.88945	.22126	1.6641	.12158	.04647	-.01144	407.69	.05147
#2	.05352	.89418	.23002	1.6745	.12237	.04620	-.00795	411.77	.05138

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04759	.04974	.05499	.87812	78.907	.46811	491.37	.05189	.22954
Stddev	.00007	.00007	.00006	.00687	.738	.00072	2.26	.00020	.00127
%RSD	.13785	.14094	.10393	.78230	.93487	.15482	.46022	.39069	.55402

#1	.04764	.04969	.05503	.88298	78.385	.46862	492.97	.05175	.22864
#2	.04754	.04979	.05495	.87327	79.428	.46760	489.77	.05203	.23044

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 2555.7	.04893	2.3799	.08117	F 1905.8	.10091	.22712	18.983	.09150
Stddev	8.4	.00043	.0032	.00090	4.4	.00169	.00129	.007	.00040
%RSD	.32723	.88903	.13267	1.1145	.23257	1.6711	.56637	.03459	.43659

#1	2549.8	.04862	2.3777	.08054	1902.7	.10210	.22621	18.978	.09178
#2	2561.6	.04924	2.3822	.08181	1909.0	.09972	.22803	18.988	.09121

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00				200.00				
Low Limit	10.000				-.02000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.7376	.20028	.05258	.15676	.47119	.07873	.21039	.05847
Stddev	.0542	.00254	.00007	.00015	.00180	.00004	.00112	.00045
%RSD	.70094	1.2686	.14162	.09591	.38214	.05392	.53412	.77484

#1	7.6992	.19849	.05263	.15686	.46991	.07870	.21118	.05879
#2	7.7759	.20208	.05253	.15665	.47246	.07876	.20959	.05815

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5204.0	72905.	4957.7
Stddev	5.8	87.	29.9
%RSD	.11076	.11923	.60326

#1	5208.1	72967.	4978.9
#2	5199.9	72844.	4936.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00002	-.01637	.00553	.97024	.01902	.00007	.00163	443.33	.00010
Stddev	.00099	.00062	.00303	.00053	.00001	.00003	.00088	3.98	.00007
%RSD	4664.0	3.7906	54.914	.05510	.03605	44.438	54.011	.89662	70.402

#1	-.00068	-.01681	.00338	.96986	.01903	.00009	.00225	440.52	.00015
#2	.00072	-.01593	.00767	.97062	.01902	.00005	.00101	446.14	.00005

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00022	.03045	.00453	-.00150	61.412	.35348	275.15	.00060	.16022
Stddev	.00006	.00013	.00030	.00293	.579	.00000	.25	.00000	.00022
%RSD	28.786	4.1956	6.6982	195.34	.94343	.00082	.08941	.24507	.13565

#1	.00018	.03054	.00432	-.00358	61.002	.35347	275.32	.00060	.16037
#2	.00027	.03036	.00474	.00057	61.822	.35348	274.98	.00059	.16006

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 2846.7	.00167	.02203	-.00263	F 1703.5	-.00108	.06589	6.9590	-.00190
Stddev	1.3	.00017	.00210	.00049	.3	.00133	.00250	.0184	.00064
%RSD	.04698	10.147	9.5366	18.666	.01818	122.70	3.7874	.26433	33.867

#1	2847.6	.00179	.02352	-.00229	1703.3	-.00014	.06412	6.9720	-.00145
#2	2845.7	.00155	.02054	-.00298	1703.7	-.00202	.06765	6.9460	-.00236

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00				200.00				
Low Limit	10.000				-.02000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.2407	.00333	.00094	.00159	-.03715	.00490	-.00004	.00194
Stddev	.0758	.00129	.00007	.00128	.00744	.00140	.00015	.00050
%RSD	1.0472	38.596	7.5550	80.520	20.036	28.481	354.84	26.016

#1	7.1871	.00424	.00089	.00068	-.03189	.00589	.00006	.00158
#2	7.2943	.00242	.00099	.00249	-.04242	.00392	-.00014	.00230

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5172.7	72527.	4907.4
Stddev	15.4	190.	7.2
%RSD	.29746	.26207	.14644

#1	5161.8	72661.	4912.5
#2	5183.6	72393.	4902.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0004	-0.01341	.00541	.93442	.01776	.00013	-0.00124	418.33	.00029
Stddev	.00012	.00042	.00137	.00084	.00016	.00002	.00048	.93	.00014
%RSD	326.12	3.1144	25.378	.08989	.88595	13.240	39.028	.22136	47.016
#1	.00005	-.01312	.00444	.93383	.01765	.00014	-.00158	417.68	.00020
#2	-.00013	-.01371	.00638	.93502	.01787	.00011	-.00089	418.99	.00039

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00032	.02331	.00407	.00429	57.168	.33442	264.13	.00081	.15203
Stddev	.00006	.00017	.00013	.00020	.355	.00077	1.30	.00006	.00008
%RSD	17.728	.71650	3.1156	4.6321	.62133	.23053	.49168	7.8361	.05508
#1	.00028	.02343	.00416	.00443	56.917	.33496	263.21	.00077	.15209
#2	.00036	.02320	.00398	.00415	57.420	.33387	265.05	.00086	.15197

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 2695.4	.00165	.02113	-.00288	F 1643.2	-.00146	.06193	6.4166	-.00228
Stddev	.3	.00035	.00133	.00085	.1	.00041	.00293	.0102	.00019
%RSD	.01151	21.271	6.2740	29.530	.00718	27.822	4.7283	.15949	8.2984
#1	2695.7	.00189	.02020	-.00228	1643.3	-.00174	.05986	6.4238	-.00241
#2	2695.2	.00140	.02207	-.00348	1643.1	-.00117	.06400	6.4093	-.00214

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00				200.00				
Low Limit	10.000				-.02000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.8854	.00227	.00069	.00024	.02139	.00465	.00100	.00213
Stddev	.0099	.00325	.00028	.00060	.03777	.00003	.00014	.00106
%RSD	.14336	142.88	41.101	248.78	176.54	.73529	13.970	49.636
#1	6.8923	.00457	.00049	-.00018	-.00531	.00467	.00090	.00287
#2	6.8784	-.00002	.00089	.00067	.04810	.00462	.00110	.00138

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5275.8	73842.	5027.5
Stddev	6.2	68.	13.9
%RSD	.11779	.09264	.27574
#1	5280.2	73890.	5037.3
#2	5271.4	73794.	5017.7

Sample Name: 160-12211-M-4-A Acquired: 6/16/2015 6:11:20 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 281101 6010B Q4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0063	.00351	.00902	1.2152	.01095	.00009	-0.00397	444.66	.00046
Stddev	.00076	.00141	.00007	.0018	.00000	.00000	.00220	3.50	.00004
%RSD	122.20	40.145	.82868	.14869	.00332	1.0910	55.453	.78608	8.2647
#1	-0.00009	.00252	.00907	1.2139	.01095	.00009	-.00552	442.18	.00043
#2	-0.00117	.00451	.00897	1.2165	.01095	.00009	-.00241	447.13	.00048

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0007	.00083	.00455	.01374	54.439	.34454	W 558.33	.00066	.26111
Stddev	.00007	.00014	.00011	.00385	.600	.00020	2.92	.00003	.00016
%RSD	110.42	17.306	2.3806	28.016	1.1026	.05943	.52383	4.6680	.06295
#1	-0.0012	.00093	.00463	.01647	54.015	.34439	560.40	.00068	.26123
#2	-0.00001	.00072	.00447	.01102	54.864	.34468	556.26	.00064	.26099

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Warn Chk Pass Chk Pass
 High Limit 500.00
 Low Limit -10000

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 2504.4	.00151	.01579	W -.00481	F 1822.9	-.00225	.22400	23.093	-.00255
Stddev	7.3	.00025	.00121	.00078	.7	.00232	.00280	.106	.00048
%RSD	.29252	16.872	7.6332	16.202	.03820	103.06	1.2513	.45794	18.660
#1	2499.2	.00133	.01494	-.00536	1822.4	-.00389	.22202	23.018	-.00221
#2	2509.6	.00169	.01664	-.00426	1823.4	-.00061	.22599	23.168	-.00289

Check ? Chk Warn Chk Pass Chk Pass Chk Warn Chk Fail Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit 500.00 10.000
 Low Limit 10.000 -.00300 -.02000

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 10.167	.00556	.00079	-.00011	-.00976	.02806	.00162	.00291
Stddev	.039	.00052	.00009	.00061	.00260	.00074	.00040	.00077
%RSD	.37878	9.2667	11.923	552.53	26.687	2.6405	24.446	26.589
#1	10.140	.00593	.00086	.00032	-.01160	.02859	.00191	.00346
#2	10.195	.00520	.00073	-.00054	-.00791	.02754	.00134	.00236

Check ? Chk Warn Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit 10.000
 Low Limit -.01000

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5238.0	73561.	5074.7
Stddev	13.5	340.	17.4
%RSD	.25776	.46209	.34236
#1	5247.6	73321.	5087.0
#2	5228.5	73801.	5062.4

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00178	48.419	-0.00279	.00921	.00005	-0.00002	1.0674	.02094	-0.00123	.00089	.00041	.01684
Stddev	.00059	.019	.00164	.00023	.00019	.00004	.0024	.00035	.00005	.00008	.00009	.00058
%RSD	32.896	.03946	58.735	2.4476	368.11	242.62	.22186	1.6663	3.6849	8.8558	22.729	3.4536

#1	-0.00220	48.432	-0.00163	.00937	-0.00008	-0.00005	1.0657	.02069	-0.00126	.00095	.00047	.01725
#2	-0.00137	48.405	-0.00394	.00905	.00018	.00001	1.0691	.02118	-0.00119	.00083	.00034	.01643

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None
Value												
Range												

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	46.051	.07637	.00663	.00987	.00144	-0.00140	273.25	.00156	.00583	-0.00328	F 5.8062	.01393
Stddev	.039	.02166	.00383	.00152	.00005	.00042	.67	.00001	.00139	.00037	.0624	.00004
%RSD	.08560	28.365	57.828	15.409	3.5775	30.194	.24657	.73249	23.836	11.425	1.0745	.25158

#1	46.078	.09169	.00392	.01094	.00147	-0.00170	273.73	.00156	.00681	-0.00355	5.8503	.01391
#2	46.023	.06105	.00934	.00879	.00140	-0.00110	272.78	.00157	.00485	-0.00302	5.7621	.01396

Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None	Chk Fail	None
Value											5.0000	
Range											10.000%	

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00150	.00233	.00014	.00061	4.9396	.00346	.00033	10.017	.00118	-0.00122	.19898
Stddev	.00461	.00797	.00055	.00003	.0057	.00003	.00019	.026	.00018	.00006	.00051
%RSD	308.23	342.58	407.97	5.0863	.11515	.78976	57.053	.26351	15.002	5.1358	.25838

#1	.00476	.00796	-0.00026	.00063	4.9437	.00344	.00020	10.036	.00131	-0.00126	.19934
#2	-0.00177	-0.00331	.00053	.00058	4.9356	.00348	.00047	9.9984	.00106	-0.00117	.19861

Check ?	None	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value											
Range											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6183.8	88143.	5298.9
Stddev	1.0	168.	12.0
%RSD	.01593	.19088	.22703

#1	6183.1	88024.	5290.4
#2	6184.5	88262.	5307.4

Sample Name: ccv-3330457 Acquired: 6/16/2015 6:17:12 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50913	.51543	1.0270	.51796	.54053	.47718	-.04890	4.8454	.51222	.52001	.51359	.52599
Stddev	.00168	.00040	.0041	.00095	.00093	.00128	.00030	.0118	.00029	.00049	.00051	.00086
%RSD	.33026	.07759	.39991	.18300	.17113	.26878	.60419	.24320	.05660	.09354	.09908	.16295

#1	.51032	.51571	1.0299	.51863	.54118	.47809	-.04911	4.8537	.51243	.51967	.51395	.52659
#2	.50794	.51515	1.0241	.51729	.53987	.47628	-.04869	4.8370	.51202	.52036	.51323	.52538

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 2.2182	52.067	F 1.1110	19.447	.49933	.52014	F 6.0342	.51973	1.0325	1.0282	.30876	1.0432
Stddev	.0029	.062	.0018	.010	.00023	.00025	.0190	.00069	.0019	.0024	.01451	.0003
%RSD	.13216	.11831	.15990	.04894	.04531	.04886	.31440	.13356	.17957	.23198	4.7001	.02447

#1	2.2203	52.024	1.1123	19.454	.49949	.51996	6.0476	.52022	1.0312	1.0265	.31902	1.0434
#2	2.2162	52.111	1.1098	19.440	.49917	.52032	6.0208	.51924	1.0338	1.0299	.29849	1.0430

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value	2.5000		1.0000				5.0000					
Range	-10.000%		10.000%				10.000%					

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0375	4.6114	1.0247	.53224	.01868	.51087	1.0449	.00322	.49107	.48583	.49953
Stddev	.0019	.0098	.0019	.00158	.00047	.00055	.0005	.00276	.00164	.00200	.00109
%RSD	.18217	.21308	.18436	.29776	2.4991	.10768	.04652	85.879	.33486	.41165	.21803

#1	1.0388	4.6044	1.0260	.53336	.01901	.51126	1.0452	.00126	.48990	.48442	.50030
#2	1.0362	4.6183	1.0234	.53112	.01835	.51048	1.0445	.00517	.49223	.48725	.49876

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6212.9	90093.	5308.8
Stddev	4.1	592.	16.4
%RSD	.06678	.65679	.30973

#1	6215.8	90511.	5297.2
#2	6210.0	89674.	5320.4

Sample Name: CCB Acquired: 6/16/2015 6:19:39 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00002	-.00076	.00248	F .00454	W -.00061	.00009	.00383	.00652	.00017	-.00036	.00015
Stddev	.00016	.00044	.00058	.00044	.00018	.00010	.00344	.00221	.00005	.00020	.00012
%RSD	696.42	57.872	23.206	9.6628	29.971	117.05	89.997	33.908	29.856	55.275	80.575

#1	.00013	-.00107	.00207	.00423	-.00074	.00016	.00139	.00808	.00021	-.00050	.00023
#2	-.00009	-.00045	.00289	.00485	-.00048	.00001	.00626	.00495	.00014	-.00022	.00006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Warn	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.00312	.00058						
Low Limit				-.00312	-.00058						

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00051	-.00123	.05043	F .00596	.00517	-.00002	.00115	F .75713	.00003	.00356	-.00167
Stddev	.00034	.00107	.04241	.00177	.00167	.00005	.00022	.00145	.00032	.00235	.00006
%RSD	66.600	86.410	84.092	29.649	32.266	229.86	19.381	.19135	948.57	66.118	3.7023

#1	.00075	-.00048	.08042	.00721	.00399	.00001	.00099	.75816	.00026	.00190	-.00162
#2	.00027	-.00199	.02044	.00471	.00635	-.00005	.00130	.75611	-.00019	.00523	-.00171
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				.00522				.20152			
Low Limit				-.00522				-.20152			

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.24158	.00060	-.00002	-.00202	-.00041	.00012	.00133	.00038	-.00186	-.00404	-.00106
Stddev	.00757	.00009	.00097	.01902	.00003	.00001	.00076	.00016	.00072	.00141	.00013
%RSD	3.1336	15.281	4677.9	940.98	7.6404	6.6714	57.349	42.060	38.828	34.996	12.164

#1	.24694	.00066	.00066	-.01547	-.00044	.00013	.00186	.00027	-.00237	-.00504	-.00116
#2	.23623	.00053	-.00071	.01143	-.00039	.00012	.00079	.00050	-.00135	-.00304	-.00097
Check ?	None	Chk Pass									
High Limit											
Low Limit											

Elem	Zn2062	Zr3391
Units	ppm	ppm
Avg	-.00337	.00109
Stddev	.00030	.00120
%RSD	9.0386	110.01
#1	-.00315	.00195
#2	-.00358	.00024

Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6268.3	91244.	5164.1
Stddev	5.1	91.	13.7
%RSD	.08074	.10013	.26447
#1	6271.9	91309.	5154.4
#2	6264.7	91180.	5173.7

Sample Name: CCVL3330451 Acquired: 6/16/2015 6:22:20 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01106	.10838	.01595	.10680	.01083	.00112	W .12455	.21059	.00541	.01057	.01071	.01724
Stddev	.00052	.00056	.00284	.00046	.00024	.00005	.00407	.00463	.00005	.00008	.00011	.00003
%RSD	4.6727	.51852	17.818	.42877	2.1956	4.6857	3.2645	2.1967	.92813	.79775	1.0575	.19465

#1	.01070	.10878	.01394	.10712	.01100	.00116	.12742	.20732	.00545	.01063	.01079	.01726
#2	.01143	.10799	.01797	.10647	.01067	.00108	.12167	.21387	.00538	.01051	.01063	.01721

Check ?	Chk Pass	Chk Warn	Chk Pass									
Value							.10000					
Range							20.000%					

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09020	3.1874	F .01583	.21528	.01049	.02113	F 1.8538	.04318	3.0381	.00810	.19748	.00843
Stddev	.00020	.0301	.00119	.00139	.00005	.00002	.0090	.00029	.0007	.00181	.00244	.00101
%RSD	.21936	.94369	7.5394	.64403	.43244	.09490	.48638	.66646	.02389	22.321	1.2346	11.992

#1	.09034	3.2087	.01668	.21430	.01052	.02112	1.8602	.04339	3.0376	.00938	.19921	.00772
#2	.09006	3.1662	.01499	.21626	.01046	.02115	1.8475	.04298	3.0386	.00682	.19576	.00914

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value			.01000				1.0000					
Range			30.000%				30.000%					

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .00980	45944	.10573	.01103	.01589	.01083	.01601	F .08231	.00912	.01919	.01647
Stddev	.00125	.01421	.00071	.00001	.00005	.00029	.00058	.01475	.00008	.00001	.00234
%RSD	12.741	3.0936	.66876	.09441	.32608	2.7037	3.6205	17.925	.84855	.06088	14.212

#1	.01068	.46949	.10623	.01104	.01593	.01062	.01560	.09274	.00906	.01920	.01813
#2	.00891	.44939	.10523	.01102	.01585	.01103	.01642	.07188	.00917	.01918	.01482

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass					
Value	.01500							.06000			
Range	-30.000%							30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6322.5	91235.	5179.6
Stddev	3.1	77.	20.6
%RSD	.04939	.08390	.39707

#1	6324.7	91180.	5165.0
#2	6320.3	91289.	5194.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0027	.00144	-0.00043	F .00395	-0.00041	.00006	.00180	.01716	.00016
Stddev	.00016	.00004	.00148	.00004	.00041	.00002	.00313	.00100	.00016
%RSD	56.970	2.5033	344.68	.98389	99.766	28.737	174.37	5.7986	98.816

#1	-0.00038	.00142	.00062	.00392	-0.00070	.00005	.00401	.01786	.00005
#2	-0.00016	.00147	-.00147	.00398	-0.00012	.00008	-.00042	.01646	.00027

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass				
High Limit				.00343					
Low Limit				-.00343					

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00045	.00019	.00091	.00146	-0.07907	W .00410	.00735	F .00155	.00024
Stddev	.00038	.00007	.00035	.00310	.01338	.00031	.00021	.00002	.00011
%RSD	85.878	38.682	37.786	212.41	16.925	7.6841	2.8792	1.1974	43.682

#1	-0.00072	.00024	.00067	-0.00073	-.06961	.00432	.00750	.00156	.00017
#2	-0.00018	.00014	.00116	.00365	-.08853	.00388	.00720	.00153	.00032

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass				
High Limit						.00261		.00056	
Low Limit						-.00261		-.00056	

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .74759	.00005	.00187	-0.00167	.17846	W -.00333	.00206	.00761	-0.00052
Stddev	.01438	.00013	.00113	.00021	.00322	.00116	.00126	.00591	.00018
%RSD	1.9231	279.09	60.703	12.513	1.8067	34.671	61.140	77.588	35.009

#1	.75776	.00014	.00267	-0.00152	.17618	-.00415	.00117	.01179	-.00065
#2	.73743	-.00004	.00107	-0.00182	.18074	-.00252	.00295	.00344	-.00039

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit	.20152					.00314			
Low Limit	-.20152					-.00314			

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00015	.00099	.00028	-0.00156	W -.02147	-0.00095	-0.00191	.00213
Stddev	.00006	.00145	.00011	.00069	.01082	.00023	.00003	.00266
%RSD	37.773	145.55	38.786	44.470	50.380	24.540	1.8240	124.57

#1	.00011	.00201	.00020	-0.00107	-.02911	-.00111	-.00194	.00025
#2	.00019	-.00003	.00035	-0.00205	-.01382	-.00078	-.00189	.00402

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit					.01610			
Low Limit					-.01610			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6386.7	92414.	5239.4
Stddev	5.3	148.	9.6
%RSD	.08230	.15970	.18377

#1	6390.4	92309.	5232.6
#2	6383.0	92518.	5246.3

Sample Name: LCS 280-280911/2-A Acquired: 6/16/2015 6:27:39 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 280911 200.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05081	1.9463	.99962	1.0377	2.1498	.04751	2.1134	47.718	.10153
Stddev	.00035	.0022	.00116	.0036	.0014	.00005	.0011	.096	.00020
%RSD	.69146	.11028	.11560	.34590	.06355	.10873	.05120	.20069	.19208

#1	.05056	1.9478	1.0004	1.0352	2.1508	.04748	2.1126	47.650	.10167
#2	.05106	1.9448	.99881	1.0403	2.1488	.04755	2.1141	47.785	.10139

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49857	.20111	.26040	F .86184	51.708	1.0922	48.154	.49346	1.0548
Stddev	.00075	.00004	.00078	.00036	.012	.0018	.016	.00011	.0001
%RSD	.15133	.01969	.29983	.04181	.02281	.16526	.03354	.02225	.00973

#1	.49804	.20108	.26095	.86210	51.700	1.0935	48.165	.49338	1.0549
#2	.49911	.20113	.25985	.86159	51.717	1.0909	48.142	.49354	1.0547

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass				
High Limit				1.1400					
Low Limit				.88000					

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 56.572	.49633	10.463	.49389	F 2.2247	.51134	2.0462	F 9.1850	2.0050
Stddev	.354	.00019	.003	.00179	.0124	.00499	.0014	.0159	.0032
%RSD	.62593	.03749	.02588	.36231	.55592	.97668	.06618	.17367	.16001

#1	56.822	.49646	10.461	.49515	2.2159	.50781	2.0472	9.1737	2.0028
#2	56.321	.49620	10.465	.49262	2.2334	.51487	2.0453	9.1962	2.0073

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	56.000				2.2000			11.500	
Low Limit	45.500				1.8000			9.4000	

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0442	.97399	1.0192	1.9897	2.0224	.49138	.48509	.53087
Stddev	.0006	.00017	.0001	.0029	.0068	.00041	.00178	.00171
%RSD	.06038	.01776	.00557	.14683	.33440	.08306	.36701	.32162

#1	1.0437	.97411	1.0191	1.9876	2.0272	.49109	.48635	.52967
#2	1.0446	.97387	1.0192	1.9917	2.0177	.49167	.48383	.53208

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6121.8	87438.	5221.4
Stddev	21.0	149.	1.3
%RSD	.34330	.17026	.02447

#1	6136.7	87544.	5220.5
#2	6106.9	87333.	5222.3

Sample Name: 280-70294-A-1-A Acquired: 6/16/2015 6:30:03 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 280911 200.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00018	.02053	.08752	.19876	.00989	.00008	.00105	22.115	.00022
Stddev	.00012	.00016	.00072	.00038	.00011	.00010	.00126	.037	.00007
%RSD	67.947	.79389	.82020	.19292	1.0750	128.88	119.80	.16808	32.156
#1	.00009	.02041	.08803	.19903	.00997	.00014	.00016	22.141	.00027
#2	.00026	.02064	.08701	.19848	.00982	.00001	.00195	22.089	.00017

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00017	.00070	.01746	.28384	16.765	.01930	5.7638	.12065	.00253
Stddev	.00014	.00006	.00024	.00126	.035	.00242	.0050	.00050	.00054
%RSD	80.678	7.9915	1.3616	.44235	.21038	12.539	.08626	.41815	21.279
#1	.00026	.00074	.01763	.28473	16.790	.01759	5.7673	.12100	.00215
#2	.00007	.00066	.01729	.28295	16.740	.02101	5.7603	.12029	.00291

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	100.05	.00415	6.5851	-0.0078	14.471	.00150	.00291	5.2451	.00002
Stddev	.05	.00020	.0021	.00020	.026	.00188	.00321	.0302	.00033
%RSD	.05312	4.9305	.03228	25.146	.17742	125.34	110.19	.57477	1448.8
#1	100.09	.00401	6.5836	-0.0064	14.489	.00017	.00064	5.2237	.00026
#2	100.01	.00430	6.5866	-0.0092	14.453	.00282	.00518	5.2664	-0.0021

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.12013	.00222	.00050	.00000	W -.07460	-0.00002	.20419	.00524
Stddev	.00007	.00374	.00008	.00011	.05647	.00040	.00153	.00037
%RSD	.05463	168.36	15.177	196980.	75.702	2151.7	.75064	7.1014
#1	.12018	-0.0042	.00045	.00008	-.03467	.00027	.20527	.00498
#2	.12009	.00486	.00056	-0.0008	-.11453	-0.00030	.20310	.00551

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Warn Chk Pass Chk Pass Chk Pass
 High Limit 45.000
 Low Limit -.05000

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6257.6	88488.	5251.3
Stddev	4.1	262.	7.2
%RSD	.06624	.29646	.13702
#1	6260.6	88303.	5246.2
#2	6254.7	88674.	5256.4

Sample Name: 280-70294-A-2-A Acquired: 6/16/2015 6:32:39 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 280911 200.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00372	1.4245	.14934	.24290	.04153	.00006	.00264	27.129	-0.0001
Stddev	.00031	.0001	.00001	.00070	.00004	.00005	.00041	.055	.00000
%RSD	8.3532	.00952	.00970	.28896	.10729	95.395	15.384	.20300	3.4122
#1	.00394	1.4246	.14933	.24241	.04156	.00010	.00235	27.168	-0.0001
#2	.00350	1.4244	.14935	.24340	.04150	.00002	.00293	27.090	-0.0001

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00076	.00842	.08595	2.5317	17.969	.01939	7.0782	.21875	.00338
Stddev	.00045	.00010	.00046	.0018	.036	.00054	.0123	.00043	.00013
%RSD	58.966	1.1693	.53036	.06925	.20140	2.7948	.17305	.19649	3.9282
#1	.00044	.00849	.08627	2.5305	17.995	.01900	7.0868	.21905	.00348
#2	.00108	.00835	.08562	2.5330	17.944	.01977	7.0695	.21844	.00329

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	79.975	.01444	10.954	.00685	15.841	.00101	-0.00215	6.2887	.00752
Stddev	.251	.00003	.020	.00154	.075	.00027	.00129	.0447	.00058
%RSD	.31345	.22802	.18022	22.533	.47173	26.588	60.182	.71140	7.7213
#1	80.152	.01442	10.940	.00794	15.788	.00082	-.00306	6.3204	.00793
#2	79.798	.01446	10.968	.00576	15.893	.00120	-.00123	6.2571	.00711

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.15131	.00203	.03298	-0.00049	.00395	.00184	.28778	.00721
Stddev	.00075	.00196	.00023	.00026	.01028	.00080	.00057	.00022
%RSD	.49706	96.361	.70897	53.565	260.50	43.672	.19802	3.0120
#1	.15185	.00065	.03281	-0.00068	-.00332	.00240	.28818	.00736
#2	.15078	.00342	.03314	-0.00031	.01121	.00127	.28737	.00705

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6275.6	89149.	5317.4
Stddev	19.7	425.	8.2
%RSD	.31424	.47691	.15427
#1	6261.6	88849.	5323.2
#2	6289.5	89450.	5311.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00043	.04731	.00107	.05107	.05789	.00002	.00075	23.150	.00021
Stddev	.00018	.00014	.00024	.00017	.00019	.00003	.00062	.041	.00031
%RSD	42.925	.29823	22.185	.34110	.32105	145.34	81.962	.17648	145.59

#1	.00056	.04741	.00090	.05095	.05776	.00005	.00119	23.179	-.00001
#2	.00030	.04721	.00123	.05119	.05802	-.00000	.00032	23.121	.00044

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00015	.00054	.00386	.11344	3.9275	.00919	10.306	.02222	.00763
Stddev	.00011	.00011	.00039	.00134	.0187	.00081	.012	.00007	.00017
%RSD	72.114	20.838	10.079	1.1822	.47576	8.8597	.11276	.31103	2.2091

#1	-.00007	.00046	.00414	.11249	3.9407	.00977	10.298	.02227	.00751
#2	-.00022	.00062	.00359	.11439	3.9143	.00862	10.314	.02217	.00775

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.927	.00287	.02948	-.00220	3.6205	-.00106	.00095	1.9312	.00007
Stddev	.140	.00004	.00100	.00053	.0019	.00029	.00089	.0088	.00004
%RSD	1.1765	1.3230	3.4004	24.170	.05106	27.705	92.931	.45747	60.033

#1	11.827	.00285	.03019	-.00182	3.6192	-.00086	.00033	1.9250	.00004
#2	12.026	.00290	.02877	-.00258	3.6218	-.00127	.00158	1.9375	.00010

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.12724	.00266	.00093	.00042	-.03506	-.00043	.00183	.00231
Stddev	.00062	.00220	.00025	.00098	.02092	.00021	.00017	.00031
%RSD	.48454	82.581	26.791	233.82	59.680	48.249	9.4452	13.252

#1	.12768	.00422	.00075	.00111	-.04985	-.00057	.00171	.00252
#2	.12680	.00111	.00111	-.00027	-.02026	-.00028	.00195	.00209

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6393.4	91187.	5292.5
Stddev	4.1	57.	12.5
%RSD	.06444	.06304	.23627

#1	6396.4	91228.	5283.6
#2	6390.5	91147.	5301.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0021	.00238	-0.00075	1.0766	.54726	.00011	-0.00001	94.188	.00017
Stddev	.00029	.00039	.00026	.0008	.00094	.00006	.00256	.191	.00016
%RSD	140.86	16.367	35.496	.07568	.17166	52.385	20655.	.20268	91.265

#1	-0.00000	.00265	-0.00093	1.0760	.54793	.00007	.00180	94.323	.00006
#2	-0.00041	.00210	-0.00056	1.0772	.54660	.00016	-.00182	94.053	.00028

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00145	.00109	.00355	.19982	15.342	.03988	13.862	.03463	.00055
Stddev	.00037	.00003	.00015	.00040	.085	.00170	.005	.00008	.00020
%RSD	25.450	2.7469	4.2317	.19770	.55492	4.2620	.03806	.22185	37.191

#1	.00119	.00111	.00345	.20010	15.402	.04108	13.858	.03457	.00041
#2	.00172	.00107	.00366	.19954	15.282	.03868	13.865	.03468	.00069

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	166.99	.01144	.03694	-0.0062	54.874	-0.00077	-0.00380	.91302	-0.00007
Stddev	.28	.00011	.00228	.00188	.011	.00063	.00127	.01408	.00039
%RSD	.17053	.96791	6.1694	301.90	.01915	82.414	33.490	1.5418	566.92

#1	167.19	.01136	.03533	-.00196	54.867	-.00032	-.00290	.90306	.00021
#2	166.79	.01151	.03855	.00071	54.882	-.00121	-.00470	.92297	-.00034

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.5022	.00176	.00050	-0.00023	-0.01837	-0.00030	.00328	.00337
Stddev	.0088	.00005	.00020	.00014	.02012	.00054	.00015	.00236
%RSD	.19597	2.9381	39.545	59.531	109.52	177.23	4.4923	70.129

#1	4.5084	.00180	.00064	-.00013	-.03259	.00008	.00339	.00504
#2	4.4959	.00172	.00036	-.00033	-.00414	-.00068	.00318	.00170

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6101.9	85979.	5156.5
Stddev	5.1	68.	20.6
%RSD	.08392	.07913	.39908

#1	6105.5	86027.	5141.9
#2	6098.2	85930.	5171.0

Sample Name: 280-70349-H-1-A SD@5 Acquired: 6/16/2015 6:40:28 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 280911 200.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0036	-0.0051	.00056	.21855	.10938	.00005	.00065	18.739	.00009
Stddev	.00014	.00075	.00168	.00126	.00023	.00003	.00272	.028	.00018
%RSD	38.617	146.52	299.35	.57467	.20996	62.619	419.46	.15102	189.73

#1	-0.00046	.00002	-0.00063	.21944	.10922	.00003	-.00128	18.719	.00022
#2	-0.00026	-.00104	.00175	.21766	.10954	.00007	.00257	18.760	-.00003

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00001	.00026	.00169	.04847	3.0106	.01115	2.8816	.00702	.00024
Stddev	.00007	.00007	.00008	.00105	.0084	.00154	.0022	.00002	.00013
%RSD	1201.4	27.960	4.7124	2.1709	.27990	13.843	.07574	.25373	52.693

#1	-0.00004	.00031	.00175	.04922	3.0046	.01224	2.8832	.00703	.00033
#2	.00005	.00021	.00163	.04773	3.0165	.01006	2.8801	.00700	.00015

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	34.513	.00255	.00784	-0.00132	10.765	-0.00125	-0.00244	.18435	-0.00069
Stddev	.476	.00032	.00007	.00007	.031	.00076	.00218	.00878	.00025
%RSD	1.3778	12.472	.90998	5.1748	.28980	60.641	89.668	4.7627	36.612

#1	34.177	.00233	.00789	-0.00127	10.787	-0.00072	-.00398	.19056	-0.00087
#2	34.850	.00278	.00779	-0.00137	10.743	-0.00179	-.00089	.17814	-0.00051

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.90175	.00084	.00036	.00046	-0.01379	-0.00076	-0.00173	.00293
Stddev	.00038	.00012	.00008	.00033	.04325	.00010	.00008	.00325
%RSD	.04228	13.864	22.238	73.482	313.74	12.954	4.8588	111.22

#1	.90148	.00093	.00042	.00069	-.04437	-0.00069	-.00178	.00523
#2	.90202	.00076	.00031	.00022	.01680	-0.00083	-.00167	.00062

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6344.9	89816.	5228.5
Stddev	1.8	34.	12.5
%RSD	.02810	.03759	.23860

#1	6343.7	89792.	5237.3
#2	6346.2	89840.	5219.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05251	1.9209	1.0301	2.0821	2.7403	.04854	2.0749	139.67	.10427
Stddev	.00014	.0002	.0039	.0004	.0055	.00012	.0005	.07	.00004
%RSD	.26195	.01132	.37465	.02064	.19989	.24166	.02419	.05074	.04046

#1	.05261	1.9210	1.0328	2.0818	2.7441	.04862	2.0745	139.72	.10424
#2	.05241	1.9207	1.0273	2.0824	2.7364	.04846	2.0752	139.62	.10430

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50273	.20409	.26970	1.0579	67.771	1.1441	61.905	.53555	1.0679
Stddev	.00107	.00003	.00011	.0072	.060	.0019	.058	.00037	.0008
%RSD	.21306	.01447	.04089	.67613	.08927	.16207	.09441	.06900	.07513

#1	.50197	.20411	.26963	1.0630	67.814	1.1454	61.947	.53581	1.0684
#2	.50349	.20407	.26978	1.0528	67.728	1.1428	61.864	.53529	1.0673

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	217.97	.50642	10.921	.49113	56.598	.51927	2.0732	9.9943	1.9921
Stddev	.18	.00003	.005	.00068	.000	.00146	.0013	.0162	.0003
%RSD	.08167	.00557	.04210	.13802	.00021	.28071	.06137	.16252	.01468

#1	218.09	.50640	10.917	.49161	56.598	.52030	2.0723	9.9828	1.9923
#2	217.84	.50644	10.924	.49066	56.598	.51824	2.0741	10.006	1.9919

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.4283	.99287	1.0419	1.9066	2.0247	.50380	.49953	.53743
Stddev	.0084	.00280	.0003	.0047	.0130	.00056	.00121	.00112
%RSD	.15413	.28248	.03227	.24727	.64055	.11187	.24233	.20793

#1	5.4342	.99485	1.0421	1.9032	2.0339	.50420	.49867	.53822
#2	5.4224	.99088	1.0416	1.9099	2.0155	.50341	.50038	.53664

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6016.4	85415.	5222.2
Stddev	.9	134.	10.0
%RSD	.01473	.15639	.19239

#1	6017.0	85320.	5215.1
#2	6015.8	85509.	5229.3

Sample Name: 280-70349-H-1-C MSD Acquired: 6/16/2015 6:45:36 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 280911 200.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05085	1.8781	1.0075	2.0513	2.7035	.04769	2.0336	137.98	.10172
Stddev	.00011	.0015	.0029	.0040	.0045	.00014	.0068	.37	.00022
%RSD	.21686	.08141	.28593	.19606	.16545	.30389	.33459	.26977	.21565
#1	.05093	1.8771	1.0055	2.0484	2.7067	.04758	2.0288	138.24	.10188
#2	.05077	1.8792	1.0095	2.0541	2.7004	.04779	2.0384	137.72	.10157

Check ?
 High Limit
 Low Limit

Chk Pass Chk Pass

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49119	.19931	.26274	1.0440	66.750	1.1299	60.482	.52216	1.0462
Stddev	.00007	.00034	.00023	.0056	.245	.0010	.053	.00025	.0026
%RSD	.01489	.17109	.08566	.53773	.36647	.09083	.08706	.04769	.25075
#1	.49124	.19907	.26258	1.0401	66.923	1.1306	60.445	.52198	1.0444
#2	.49114	.19956	.26289	1.0480	66.577	1.1291	60.519	.52233	1.0481

Check ?
 High Limit
 Low Limit

Chk Pass Chk Pass

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	215.75	.49575	10.684	.47999	55.974	.50412	2.0324	9.8112	1.9482
Stddev	.46	.00026	.026	.00118	.091	.00053	.0045	.0536	.0016
%RSD	.21333	.05338	.24214	.24665	.16182	.10589	.21978	.54615	.08137
#1	216.08	.49556	10.666	.47916	55.910	.50375	2.0292	9.8491	1.9471
#2	215.43	.49594	10.703	.48083	56.038	.50450	2.0355	9.7733	1.9493

Check ?
 High Limit
 Low Limit

Chk Pass Chk Pass

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.3706	.96891	1.0163	1.8694	1.9639	.49173	.48632	.52371
Stddev	.0141	.00041	.0001	.0041	.0262	.00116	.00196	.00275
%RSD	.26309	.04181	.00540	.22103	1.3342	.23629	.40232	.52592
#1	5.3606	.96862	1.0163	1.8665	1.9454	.49091	.48493	.52566
#2	5.3806	.96919	1.0163	1.8723	1.9824	.49255	.48770	.52176

Check ?
 High Limit
 Low Limit

Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6000.8	85304.	5180.6
Stddev	4.1	109.	1.9
%RSD	.06864	.12745	.03742
#1	6003.7	85381.	5179.2
#2	5997.9	85227.	5182.0

Sample Name: ccvh-3323227 Acquired: 6/16/2015 6:48:06 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .00342	47.234	k .00170	.01026	k -.00007	k .00001	k 1.0149	k -.02331	k -.00133	k .00116	k .00065	k .02131
Stddev	.00623	.134	.00541	.00083	.00004	.00011	.0165	.05024	.00030	.00001	.00024	.00496
%RSD	182.21	.28297	318.68	8.0593	51.666	1287.8	1.6259	215.49	22.501	.73977	36.729	23.267

#1	-.00099	47.328	.00552	.00967	-.00009	.00009	1.0265	.01221	-.00154	.00115	.00048	.01780
#2	k .00782	47.139	k -.00213	.01084	k -.00004	k -.00007	k 1.0032	k -.05883	k -.00111	k .00117	k .00081	k .02482

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None
Value												
Range												

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	kF 44.785	.10665	k .00472	k -.08215	k .00072	.00014	268.02	k .00098	.00497	k .00177	5.1712	k .00647
Stddev	.383	.03739	.00000	.12126	.00104	.00004	1.27	.00089	.00322	.00675	.0118	.01107
%RSD	.85505	35.054	.07056	147.61	144.02	26.223	.47198	91.213	64.766	381.23	.22922	171.17

#1	45.056	.13309	.00472	.00360	.00146	.00016	268.91	.00160	.00725	-.00300	5.1796	.01429
#2	k 44.514	.08022	k .00472	k -.16790	k -.00001	.00011	267.12	k .00035	.00269	k .00655	5.1628	k -.00136

Check ?	Chk Fail	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None
Value	50.000											
Range	-10.000%											

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .00102	-.00317	k .00100	.00069	k 4.9458	k .01124	k -.00209	k 9.7549	k .00090	k -.00143	k .25783
Stddev	.01341	.00167	.00111	.00009	.1765	.01269	.00223	.0128	.00096	.00079	.08360
%RSD	1312.3	52.653	110.95	12.814	3.5679	112.90	106.66	.13156	106.38	55.002	32.426

#1	.01051	-.00435	.00022	.00063	4.8211	.00227	-.00051	9.7458	.00022	-.00087	.19872
#2	k -.00846	-.00199	k .00179	.00076	k 5.0706	k .02021	k -.00367	k 9.7639	k .00158	k -.00198	k .31695

Check ?	None	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value											
Range											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6162.9	86441.	5157.2
Stddev	16.8	145.	18.9
%RSD	.27265	.16805	.36669

#1	6151.0	86339.	5143.8
#2	6174.7	86544.	5170.5

Sample Name: ccv-3330457 Acquired: 6/16/2015 6:50:41 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49450	.50210	.98899	.50431	.53521	.46803	-.05045	4.7482	.50628	.50067	.49609	.50627
Stddev	.00106	.00031	.00410	.00021	.00063	.00069	.00073	.0124	.00014	.00102	.00043	.00027
%RSD	.21507	.06178	.41503	.04176	.11685	.14678	1.4494	.26196	.02857	.20305	.08700	.05313

#1	.49375	.50188	.99189	.50446	.53565	.46852	-.04994	4.7570	.50618	.50138	.49639	.50608
#2	.49525	.50232	.98609	.50416	.53477	.46755	-.05097	4.7394	.50638	.49995	.49578	.50646

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 2.1415	50.621	1.0802	19.371	.49128	.50164	F 5.6304	.50026	.98862	1.0133	.07962	1.0115
Stddev	.0086	.111	.0020	.021	.00058	.00049	.0050	.00010	.00210	.0019	.00144	.0004
%RSD	.40043	.21957	.18623	.10969	.11779	.09753	.08868	.01931	.21275	.18394	1.8126	.04371

#1	2.1476	50.699	1.0816	19.386	.49169	.50198	5.6269	.50033	.99011	1.0146	.07860	1.0112
#2	2.1354	50.542	1.0787	19.355	.49087	.50129	5.6340	.50019	.98714	1.0120	.08064	1.0119

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass				
Value	2.5000						5.0000					
Range	-10.000%						10.000%					

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.99375	4.5065	.99252	.51491	.01958	.50143	1.0197	-.02556	.48072	.48264	.48303
Stddev	.00180	.0096	.00011	.00049	.00095	.00122	.0012	.00383	.00010	.00083	.00090
%RSD	.18070	.21303	.01136	.09513	4.8379	.24342	.11438	14.993	.02038	.17126	.18539

#1	.99502	4.5133	.99260	.51526	.01891	.50230	1.0189	-.02827	.48065	.48206	.48240
#2	.99248	4.4997	.99244	.51457	.02025	.50057	1.0205	-.02285	.48079	.48323	.48366

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6262.3	88870.	5158.6
Stddev	5.5	106.	5.6
%RSD	.08773	.11914	.10897

#1	6258.5	88795.	5154.6
#2	6266.2	88945.	5162.6

Sample Name: CCB Acquired: 6/16/2015 6:53:08 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0015	-0.00101	.00205	F .00492	-0.00045	.00006	.00172	.00664	.00012	-0.00025	.00020	.00045
Stddev	.00041	.00006	.00345	.00021	.00031	.00004	.00273	.00207	.00002	.00013	.00005	.00004
%RSD	270.87	6.3898	168.52	4.1654	68.670	80.951	159.30	31.192	15.307	51.473	26.025	7.9103

#1	-0.00044	-0.00096	.00449	.00507	-0.00023	.00002	.00365	.00517	.00013	-0.00034	.00024	.00047
#2	.00014	-0.00105	-0.00039	.00478	-0.00067	.00009	-0.00022	.00810	.00011	-0.00016	.00016	.00042

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.00312								
Low Limit				-.00312								

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00374	.01627	F .00653	.00171	-0.00004	.00125	F .41111	.00022	.00010	-0.00216	.08420	.00147
Stddev	.00513	.01063	.00066	.00083	.00003	.00030	.00244	.00010	.00353	.00001	.00159	.00032
%RSD	137.28	65.338	10.148	48.528	64.456	23.978	.59282	45.280	3647.1	.51716	1.8826	21.991

#1	-0.00011	.00875	.00606	.00230	-0.00006	.00104	.41283	.00028	.00259	-0.00216	.08308	.00124
#2	-0.00737	.02379	.00700	.00113	-0.00002	.00146	.40939	.00015	-.00240	-0.00215	.08532	.00169

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit			.00522				.20152					
Low Limit			-.00522				-.20152					

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00110	-0.01105	-0.00045	.00013	.00151	.00019	-0.00140	-0.01278	-0.00077	-0.00302	.00221
Stddev	.00222	.00752	.00049	.00002	.00065	.00031	.00008	.01268	.00009	.00046	.00023
%RSD	201.77	68.022	108.81	11.777	42.644	165.81	5.7140	99.201	11.229	15.259	10.612

#1	.00267	-0.00574	-0.00080	.00012	.00197	.00041	-0.00146	-0.00382	-0.00071	-0.00335	.00205
#2	-0.00047	-0.01637	-0.00010	.00014	.00106	-.00003	-0.00134	-0.02175	-0.00083	-0.00270	.00238

Check ?	Chk Pass										
High Limit											
Low Limit											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6316.8	90219.	5046.8
Stddev	18.5	66.	24.6
%RSD	.29299	.07293	.48800

#1	6329.9	90173.	5029.4
#2	6303.7	90266.	5064.2

Sample Name: CCVL3330451 Acquired: 6/16/2015 6:55:50 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01074	W .12228	W .01813	.10528	.01086	.00095	W .12472	.20600	.00542	.01054	.01043	.01716
Stddev	.00006	.00107	.00039	.00046	.00021	.00017	.00122	.00135	.00003	.00026	.00004	.00061
%RSD	.53071	.87115	2.1721	.43442	1.8952	18.317	.97822	.65712	.48042	2.4515	.41244	3.5587

#1	.01078	.12304	.01841	.10560	.01100	.00107	.12559	.20505	.00544	.01035	.01040	.01760
#2	.01070	.12153	.01785	.10495	.01071	.00083	.12386	.20696	.00541	.01072	.01046	.01673

Check ?	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		.10000	.01500				.10000					
Range		20.000%	20.000%				20.000%					

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08682	3.1804	F .01622	.21927	.01052	.02048	F 1.5392	.04304	2.9822	.00817	.07844	.00975
Stddev	.00042	.0474	.00196	.00084	.00005	.00027	.0026	.00029	.0006	.00028	.00099	.00142
%RSD	.48916	1.4908	12.096	.38339	.49350	1.3192	.16565	.66238	.02151	3.4172	1.2620	14.556

#1	.08652	3.2139	.01761	.21868	.01048	.02029	1.5374	.04284	2.9818	.00837	.07774	.00875
#2	.08712	3.1469	.01484	.21987	.01056	.02067	1.5410	.04324	2.9827	.00797	.07914	.01076

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value			.01000				1.0000					
Range			30.000%				30.000%					

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .00866	4.7096	.10339	.01083	.01616	.01034	.01549	W .04436	.00921	.01997	.01624
Stddev	.00344	.01030	.00041	.00009	.00138	.00021	.00065	.05838	.00038	.00017	.00197
%RSD	39.793	2.1878	.39984	.82964	8.5112	2.0476	4.2122	131.62	4.1326	.85025	12.144

#1	.01109	.46368	.10310	.01089	.01519	.01048	.01503	.08564	.00948	.01985	.01485
#2	.00622	.47825	.10369	.01076	.01713	.01019	.01595	.00307	.00894	.02009	.01764

Check ?	Chk Fail	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass					
Value	.01500							.06000			
Range	-30.000%							-20.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6330.9	90091.	5111.6
Stddev	17.5	242.	17.0
%RSD	.27646	.26845	.33298

#1	6343.3	89920.	5123.6
#2	6318.5	90262.	5099.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0014	.00600	-0.00126	F .00408	-0.00026	.00003	.00155	.02119	.00016
Stddev	.00017	.00042	.00124	.00029	.00001	.00000	.00353	.00207	.00015
%RSD	120.21	6.9544	98.561	7.0940	5.5929	5.8095	227.09	9.7597	94.373
#1	-0.0027	.00570	-0.0038	.00428	-0.0027	.00003	.00405	.02265	.00005
#2	-0.00002	.00629	-0.00213	.00387	-0.00025	.00003	-0.00094	.01972	.00027
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.00343					
Low Limit				-.00343					

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0017	.00022	.00129	.00339	-0.04278	W .00408	.00646	.00023	.00012
Stddev	.00014	.00022	.00034	.00226	.01509	.00162	.00080	.00002	.00009
%RSD	80.763	99.593	26.323	66.599	35.264	39.686	12.460	7.7760	76.847
#1	-0.0027	.00006	.00153	.00498	-.05345	.00522	.00702	.00024	.00005
#2	-0.00007	.00037	.00105	.00179	-.03211	.00293	.00589	.00021	.00018
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit						.00261			
Low Limit						-.00261			

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .41648	.00043	.00253	-0.00154	.08650	-0.00105	-0.00124	.00197	-0.00005
Stddev	.01216	.00008	.00002	.00049	.00433	.00096	.00337	.01338	.00089
%RSD	2.9203	17.494	.97597	32.097	5.0026	91.258	270.86	678.93	1774.6
#1	.40788	.00038	.00251	-.00189	.08344	-.00173	-.00363	-.00749	-.00068
#2	.42508	.00048	.00255	-.00119	.08956	-.00037	.00114	.01143	.00058
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.20152								
Low Limit	-.20152								

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00009	.00008	.00029	-0.00089	-0.01401	-0.00026	-0.00008	.00321
Stddev	.00007	.00123	.00023	.00113	.02724	.00021	.00055	.00045
%RSD	76.814	1493.7	79.039	127.96	194.45	79.960	680.54	14.106
#1	.00004	.00095	.00045	-.00169	-.03328	-.00011	.00031	.00353
#2	.00014	-.00079	.00013	-.00008	.00525	-.00041	-.00047	.00289
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6343.0	90641.	5112.2
Stddev	30.6	81.	34.1
%RSD	.48167	.08916	.66699
#1	6364.6	90698.	5136.3
#2	6321.4	90584.	5088.1

Sample Name: LCS 280-280758/2-A Acquired: 6/16/2015 7:01:06 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 280758 200.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05152	1.9792	.99501	1.0288	2.2023	.04844	2.0767	48.566	.10244
Stddev	.00004	.0013	.00008	.0005	.0044	.00001	.0032	.067	.00012
%RSD	.08545	.06742	.00829	.04478	.19877	.01270	.15639	.13797	.11355

#1	.05149	1.9783	.99507	1.0285	2.1992	.04843	2.0744	48.519	.10252
#2	.05156	1.9801	.99495	1.0292	2.2053	.04844	2.0790	48.613	.10236

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50195	.20219	.25991	.88424	52.352	1.1010	49.374	.50404	1.0602
Stddev	.00040	.00010	.00081	.00330	.219	.0023	.011	.00024	.0006
%RSD	.07954	.05102	.31008	.37303	.41763	.21189	.02173	.04757	.05209

#1	.50167	.20212	.25934	.88191	52.197	1.0994	49.367	.50421	1.0598
#2	.50224	.20226	.26048	.88658	52.507	1.1027	49.382	.50387	1.0606

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 56.413	.49917	10.416	.50311	2.1249	.50717	2.0308	F 9.3570	2.0183
Stddev	.298	.00036	.011	.00221	.0031	.00029	.0101	.0222	.0047
%RSD	.52904	.07286	.10618	.44014	.14424	.05621	.49695	.23747	.23291

#1	56.202	.49943	10.423	.50467	2.1271	.50737	2.0380	9.3727	2.0150
#2	56.624	.49892	10.408	.50154	2.1227	.50697	2.0237	9.3413	2.0216

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass					
High Limit	56.000							11.500	
Low Limit	45.500							9.4000	

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0517	.98480	1.0373	2.0012	2.0792	.49906	.50122	.53024
Stddev	.0028	.00122	.0003	.0049	.0238	.00028	.00059	.00059
%RSD	.26245	.12389	.03093	.24337	1.1466	.05578	.11855	.11168

#1	1.0498	.98566	1.0371	2.0047	2.0961	.49886	.50080	.52982
#2	1.0537	.98394	1.0375	1.9978	2.0624	.49925	.50164	.53066

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5971.3	84699.	4967.6
Stddev	11.6	264.	34.4
%RSD	.19356	.31117	.69341

#1	5979.5	84885.	4992.0
#2	5963.1	84513.	4943.3

Sample Name: 280-70341-A-1-A Acquired: 6/16/2015 7:03:31 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 280758 200.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0042	.01548	.00092	.07378	.00758	.00006	.00054	27.366	.00010
Stddev	.00022	.00012	.00164	.00025	.00030	.00002	.00001	.096	.00012
%RSD	54.081	.79071	178.06	.33632	4.0203	27.032	.99069	.35233	120.62
#1	-0.0026	.01539	-0.0024	.07396	.00736	.00007	.00054	27.298	.00001
#2	-0.0057	.01556	.00208	.07361	.00779	.00005	.00055	27.434	.00018

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0040	.00127	.00650	.03845	18.900	.01016	2.5575	.00772	.00446
Stddev	.00007	.00012	.00012	.00297	.114	.00030	.0091	.00009	.00015
%RSD	18.268	9.0724	1.9052	7.7169	.60306	2.9466	.35549	1.1046	3.2872
#1	-0.0046	.00119	.00641	.04055	18.819	.01038	2.5511	.00766	.00436
#2	-0.0035	.00135	.00659	.03636	18.980	.00995	2.5639	.00778	.00456

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	67.880	.00247	.46263	-0.00180	8.5910	-0.00168	.00449	4.8151	-0.00004
Stddev	.699	.00002	.00130	.00011	.0002	.00142	.00164	.0447	.00036
%RSD	1.0303	.94385	.28075	5.9043	.00195	84.538	36.472	.92723	844.54
#1	67.386	.00245	.46171	-0.00172	8.5909	-0.00068	.00333	4.7836	-0.00029
#2	68.375	.00248	.46355	-0.00187	8.5911	-0.00268	.00564	4.8467	.00021

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.13866	.00064	.00032	.00091	-0.01361	-0.00098	.06140	-0.00037
Stddev	.00073	.00101	.00035	.00012	.02243	.00070	.00059	.00149
%RSD	.52320	158.25	109.90	13.017	164.77	71.127	.96701	405.27
#1	.13814	.00135	.00056	.00082	-.02947	-0.00049	.06098	-.00142
#2	.13917	-.00008	.00007	.00099	.00225	-.00147	.06182	.00069

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6100.9	85984.	4961.1
Stddev	6.3	131.	16.3
%RSD	.10251	.15262	.32805
#1	6096.4	86077.	4972.6
#2	6105.3	85892.	4949.6

Sample Name: 280-70348-C-1-C Acquired: 6/16/2015 7:06:09 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 280758 200.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00038	.01584	.00295	.03220	.44473	.00003	.00096	4.7919	-0.00000
Stddev	.00001	.00015	.00031	.00006	.00105	.00005	.00410	.0097	.00027
%RSD	2.9030	.95468	10.496	.17526	.23678	137.60	428.55	.20325	9113.0
#1	-0.00037	.01573	.00317	.03224	.44548	.00000	-.00194	4.7988	.00019
#2	-0.00039	.01594	.00273	.03216	.44399	.00007	.00386	4.7850	-.00019

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00033	.00061	.00255	.32011	1.2944	.01409	.95350	.00608	.00075
Stddev	.00008	.00009	.00003	.00052	.0210	.00036	.00195	.00000	.00039
%RSD	24.797	14.241	1.0875	.16346	1.6184	2.5784	.20458	.01927	52.618
#1	-0.00039	.00067	.00253	.32048	1.3092	.01435	.95212	.00608	.00047
#2	-0.00027	.00055	.00257	.31974	1.2796	.01383	.95488	.00608	.00103

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	199.37	.00064	.02970	W -.00308	.18475	-.00275	-.00327	6.1867	-.00087
Stddev	.80	.00006	.00053	.00126	.00013	.00161	.00210	.0432	.00086
%RSD	.39955	8.7667	1.7820	40.931	.07184	58.536	64.208	.69832	98.959
#1	199.93	.00060	.03007	-.00219	.18485	-.00389	-.00178	6.2172	-.00147
#2	198.81	.00068	.02932	-.00397	.18466	-.00161	-.00475	6.1561	-.00026

Check ? Chk Pass Chk Pass Chk Pass Chk Warn Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit 10.000
 Low Limit -.00300

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.32655	-.00032	.00049	.00007	.00353	-.00068	.00078	.00087
Stddev	.00044	.00106	.00075	.00005	.00262	.00013	.00000	.00026
%RSD	.13386	330.45	151.45	63.021	74.226	19.683	.12738	30.023
#1	.32686	-.00107	-.00003	.00004	.00168	-.00077	.00078	.00105
#2	.32624	.00043	.00102	.00011	.00538	-.00058	.00078	.00068

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5958.2	83948.	4885.6
Stddev	.1	9.	9.2
%RSD	.00243	.01084	.18797
#1	5958.3	83954.	4879.1
#2	5958.1	83941.	4892.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00054	.03140	.00056	.18352	.30622	.00010	-0.00071	2.5271	-0.0002
Stddev	.00058	.00005	.00154	.00014	.00013	.00003	.00222	.0043	.00020
%RSD	109.20	.15844	272.15	.07399	.04232	26.549	313.58	.17046	897.68

#1	-0.0012	.03136	.00165	.18362	.30613	.00008	.00086	2.5241	.00012
#2	-0.00095	.03143	-.00052	.18342	.30631	.00012	-.00228	2.5302	-.00017

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00014	.00150	.00318	.95219	1.9092	.07772	.29723	.01397	.00123
Stddev	.00009	.00002	.00002	.00345	.0089	.00113	.00274	.00001	.00019
%RSD	66.809	1.0711	.70742	.36277	.46500	1.4519	.92103	.07050	15.350

#1	-0.0021	.00148	.00316	.94975	1.9155	.07692	.29529	.01398	.00109
#2	-0.00007	.00151	.00319	.95464	1.9029	.07852	.29916	.01396	.00136

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	421.88	.00143	.03474	-0.00070	.46238	-0.00298	-0.00311	9.1129	-0.00029
Stddev	.29	.00034	.00449	.00079	.00721	.00018	.00286	.0567	.00081
%RSD	.06811	24.136	12.928	113.35	1.5583	6.0497	92.102	.62257	277.20

#1	421.68	.00119	.03156	-.00014	.45728	-.00311	-.00108	9.0727	-.00087
#2	422.09	.00167	.03791	-.00126	.46747	-.00285	-.00513	9.1530	.00028

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.43133	-0.00060	.00036	.00094	.00542	-0.00091	-0.00019	.00087
Stddev	.00024	.00020	.00017	.00016	.02560	.00016	.00019	.00071
%RSD	.05508	33.872	48.429	16.509	472.66	18.127	99.096	81.013

#1	.43117	-.00045	.00048	.00083	.02352	-.00079	-.00032	.00137
#2	.43150	-.00074	.00023	.00105	-.01269	-.00102	-.00006	.00037

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5839.7	81756.	4888.6
Stddev	10.5	141.	30.6
%RSD	.18026	.17277	.62688

#1	5832.3	81656.	4910.3
#2	5847.2	81855.	4867.0

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0050	8.2084	.00701	.19726	.22870	.00042	W -0.01971	185.71	.00145
Stddev	.00006	.0210	.00149	.00021	.00092	.00017	.00086	.74	.00001
%RSD	12.012	.25644	21.194	.10638	.40380	40.040	4.3671	.39616	.88033

#1	-0.0054	8.1935	.00596	.19711	.22805	.00054	-.01910	185.19	.00146
#2	-0.0045	8.2232	.00806	.19741	.22935	.00030	-.02032	186.23	.00144

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass					
High Limit							3.0000		
Low Limit							-.01000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00473	.03554	.68126	14.792	31.700	.05563	59.766	2.0321	.00672
Stddev	.00002	.00026	.00108	.050	.176	.00020	.023	.0010	.00013
%RSD	.39452	.73486	.15872	.33793	.55465	.35417	.03832	.05094	1.9642

#1	.00472	.03572	.68203	14.756	31.576	.05577	59.750	2.0313	.00663
#2	.00474	.03535	.68050	14.827	31.825	.05549	59.782	2.0328	.00681

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 794.05	.09838	.42481	.00764	184.69	.00036	.00153	17.969	.00085
Stddev	2.76	.00057	.00142	.00000	.37	.00411	.00512	.091	.00025
%RSD	.34719	.58386	.33528	.02503	.20096	1140.0	334.82	.50844	29.065

#1	792.10	.09878	.42380	.00764	184.95	.00327	.00514	18.033	.00068
#2	796.00	.09797	.42582	.00764	184.42	-.00255	-.00209	17.904	.00102

Check ?	Chk Warn	Chk Pass							
High Limit	500.00								
Low Limit	10.000								

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.6383	.00581	.17682	-.00297	-.02308	.01684	1.3395	.00718
Stddev	.0119	.00049	.00033	.00102	.02414	.00005	.0027	.00090
%RSD	.32757	8.5000	.18776	34.348	104.59	.31780	.20079	12.501

#1	3.6299	.00615	.17705	-.00369	-.00601	.01687	1.3376	.00655
#2	3.6468	.00546	.17658	-.00225	-.04016	.01680	1.3414	.00782

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5796.8	80509.	5051.8
Stddev	.1	260.	33.2
%RSD	.00110	.32233	.65817

#1	5796.8	80693.	5075.3
#2	5796.7	80326.	5028.3

Sample Name: 280-70256-B-3-B Acquired: 6/16/2015 7:14:26 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 280758 200.7

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00031	W 3.9386	.05386	.12443	2.9313	.00039	W -.01226	W 615.79	.07068
Stddev	.00066	.0122	.00179	.00013	.0015	.00000	.00515	1.01	.00029
%RSD	214.68	.31026	3.3303	.10614	.05172	.03293	42.036	.16376	.41078
#1	.00078	3.9300	.05512	.12433	2.9302	.00039	-.00861	616.51	.07088
#2	-.00016	3.9473	.05259	.12452	2.9324	.00039	-.01590	615.08	.07047
Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass
High Limit		500.00					3.0000	500.00	
Low Limit		4.0000					-.01000	-.05000	

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	271.441 {124}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00842	.07627	8.1439	47.766	F 2671.9	.36343	240.53	2.1997	.05753
Stddev	.00010	.00041	.0288	.128	18.1	.00040	.96	.0051	.00015
%RSD	1.1755	.53339	.35339	.26844	.67729	.10993	.39757	.23351	.25363
#1	.00849	.07598	8.1236	47.675	2684.7	.36315	241.20	2.1960	.05763
#2	.00835	.07656	8.1643	47.856	2659.1	.36371	239.85	2.2033	.05743
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					500.00				
Low Limit					-2.0000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 12414.	.20375	4.4855	.08565	52.783	.02637	.04808	13.448	.00806
Stddev	50.	.00006	.0022	.00084	.182	.00059	.00144	.380	.00107
%RSD	.40236	.02765	.04887	.97803	.34521	2.2561	2.9955	2.8219	13.216
#1	12449.	.20379	4.4870	.08506	52.654	.02679	.04707	13.716	.00882
#2	12379.	.20371	4.4839	.08624	52.912	.02594	.04910	13.180	.00731
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10000.								
Low Limit	9.0000								

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 26.035	.01080	.18097	-.00322	-.00911	.02589	6.2928	.00684
Stddev	.113	.00031	.00116	.00075	.02221	.00059	.0033	.00329
%RSD	.43237	2.8647	.64028	23.341	243.73	2.2944	.05292	48.142
#1	25.955	.01058	.18179	-.00269	.00659	.02631	6.2905	.00917
#2	26.114	.01102	.18015	-.00375	-.02481	.02547	6.2952	.00451
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	20.000							
Low Limit	-.02000							

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	4437.0	60712.	4576.4
Stddev	8.0	199.	4.8
%RSD	.18096	.32839	.10414
#1	4442.7	60853.	4573.0
#2	4431.4	60571.	4579.8

Sample Name: 280-70256-G-4-B Acquired: 6/16/2015 7:17:54 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 280758 200.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0066	4.1892	.86954	45.111	.08284	.00029	.00633	4.3879	-0.0118
Stddev	.00008	.00018	.00312	.005	.00054	.00018	.00486	.0068	.00038
%RSD	12.060	.04413	.35898	.01072	.64933	62.356	76.835	.15553	31.963
#1	-0.0061	.41905	.87175	45.108	.08322	.00016	.00977	4.3927	-.00145
#2	-0.0072	.41879	.86733	45.115	.08246	.00042	.00289	4.3831	-.00091

Check ? Chk Pass
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01616	.04733	.01293	2.0639	F 900.55	8.1832	20.489	.95093	W 2.0582
Stddev	.00027	.00015	.00025	.0067	5.34	.0095	.007	.00059	.0024
%RSD	1.6850	.32409	1.9082	.32397	.59304	.11640	.03603	.06199	.11472
#1	.01597	.04744	.01275	2.0686	896.77	8.1900	20.494	.95134	2.0599
#2	.01636	.04722	.01310	2.0592	904.33	8.1765	20.484	.95051	2.0565

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Fail Chk Pass Chk Pass Chk Pass Chk Warn
 High Limit 500.00 2.0000
 Low Limit -2.0000 -0.01000

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 5132.8	.56880	30.304	F -.02263	F 3961.9	.11157	.31044	4.2400	.04097
Stddev	34.6	.00109	.036	.00067	8.2	.00465	.00091	.0442	.00010
%RSD	.67397	.19129	.11777	2.9405	.20623	4.1660	.29443	1.0420	.24321
#1	5157.3	.56803	30.329	-.02216	3967.6	.10828	.30979	4.2088	.04104
#2	5108.4	.56957	30.279	-.02310	3956.1	.11486	.31108	4.2713	.04090

Check ? Chk Fail Chk Pass Chk Pass Chk Fail Chk Fail Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit 10.000 200.00 200.00
 Low Limit -1.0000 -0.00900 -0.02000

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.53480	.06304	.34922	.00127	.05870	1.1771	.05083	.57975
Stddev	.00093	.00052	.00011	.00165	.04211	.0016	.00034	.00039
%RSD	.17424	.82013	.03283	129.53	71.735	.13470	.67283	.06696
#1	.53546	.06341	.34930	.00011	.08848	1.1760	.05107	.57947
#2	.53414	.06268	.34914	.00244	.02892	1.1782	.05059	.58002

Check ? Chk Pass
 High Limit
 Low Limit

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	4072.1	53297.	4412.4
Stddev	4.7	101.	29.5
%RSD	.11553	.18911	.66881
#1	4075.5	53225.	4433.3
#2	4068.8	53368.	4391.5

Sample Name: ccvh-3323227 Acquired: 6/16/2015 7:21:05 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .00831	46.405	k -.00458	.07686	k .00072	k .00008	k .98101	k -.06137	k -.00128	k .00083	k .00062	k .02480
Stddev	.00015	.075	.00300	.00652	.00057	.00007	.00267	.00164	.00011	.00021	.00004	.00035
%RSD	1.8405	.16159	65.568	8.4803	79.495	85.467	.27216	2.6693	8.3495	25.202	6.1383	1.4282

#1	k .00842	46.458	k -.00246	.08147	k .00031	k .00014	k .97913	k -.06252	k -.00135	k .00068	k .00064	k .02505
#2	k .00820	46.352	k -.00671	.07225	k .00112	k .00003	k .98290	k -.06021	k -.00120	k .00098	k .00059	k .02455

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None
Value												
Range												

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	kF 43.459	4.4998	k .00885	k -.16284	k .00013	-.00010	268.81	k .00005	.01240	k .00968	F 5.6356	k -.00131
Stddev	.131	.3859	.00034	.00077	.00006	.00021	.97	.00001	.00137	.00068	.0457	.00103
%RSD	.30229	8.5760	3.8191	.47178	50.960	218.59	.36037	28.766	11.072	6.9940	.81169	79.091

#1	k 43.551	4.7726	k .00861	k -.16338	k .00017	-.00025	269.49	k .00004	.01338	k .00920	5.6680	k -.00204
#2	k 43.366	4.2269	k .00909	k -.16229	k .00008	.00005	268.12	k .00006	.01143	k .01016	5.6033	k -.00058

Check ?	Chk Fail	None	None	None	None	None	Chk Pass	None	None	None	Chk Fail	None
Value	50.000										5.0000	
Range	-10.000%										10.000%	

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k -.01019	.01797	k .00077	.00059	k 5.0579	k .01954	k -.00223	k 9.7649	k .00173	k -.00234	k .31526
Stddev	.00267	.00420	.00046	.00007	.0088	.00039	.00004	.0135	.00024	.00033	.00196
%RSD	26.234	23.390	59.967	12.324	.17377	1.9948	1.9054	.13818	14.069	14.154	.62328

#1	k -.00830	.01500	k .00044	.00054	k 5.0641	k .01927	k -.00226	k 9.7745	k .00190	k -.00211	k .31665
#2	k -.01208	.02095	k .00109	.00065	k 5.0516	k .01982	k -.00220	k 9.7554	k .00155	k -.00258	k .31387

Check ?	None	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value											
Range											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5899.5	82759.	4910.1
Stddev	.3	40.	15.1
%RSD	.00515	.04835	.30719

#1	5899.7	82787.	4920.7
#2	5899.3	82731.	4899.4

Sample Name: ccv-3330457 Acquired: 6/16/2015 7:23:40 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49181	.50180	.96820	.53863	.53646	.46270	-.05436	4.6811	.50501	.49649	.49264	.50055
Stddev	.00168	.00057	.00108	.00227	.00083	.00084	.00067	.0028	.00005	.00068	.00014	.00029
%RSD	.34071	.11451	.11164	.42156	.15457	.18216	1.2303	.05979	.01084	.13669	.02753	.05799

#1	.49299	.50139	.96744	.54024	.53704	.46211	-.05389	4.6792	.50497	.49697	.49254	.50076
#2	.49062	.50221	.96897	.53703	.53587	.46330	-.05483	4.6831	.50505	.49601	.49273	.50034

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 2.0784	52.114	1.0862	19.517	.49390	.49842	F 8.8710	.49622	.97964	1.0107	.42028	.99566
Stddev	.0071	.007	.0031	.038	.00078	.00119	.0404	.00040	.00068	.0013	.01379	.00129
%RSD	.34038	.01421	.28603	.19331	.15776	.23892	.45574	.08114	.06902	.12591	3.2814	.12972

#1	2.0734	52.109	1.0840	19.544	.49445	.49926	8.8996	.49593	.98012	1.0098	.43003	.99657
#2	2.0834	52.120	1.0884	19.490	.49335	.49758	8.8424	.49650	.97916	1.0116	.41053	.99474

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass				
Value	2.5000						5.0000					
Range	-10.000%						10.000%					

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.97128	F 4.4841	.98785	.50913	.01984	.50308	1.0182	-.00643	.48176	.48838	.47237
Stddev	.00010	.0036	.00165	.00002	.00026	.00137	.0009	.01464	.00021	.00135	.00377
%RSD	.01030	.08057	.16718	.00402	1.2991	.27265	.08702	227.58	.04275	.27658	.79754

#1	.97121	4.4866	.98902	.50912	.02002	.50405	1.0188	-.01678	.48191	.48933	.47504
#2	.97135	4.4815	.98669	.50915	.01966	.50211	1.0176	.00392	.48162	.48742	.46971

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value		5.0000									
Range		-10.000%									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6025.4	84561.	4858.6
Stddev	9.2	298.	9.8
%RSD	.15307	.35214	.20217

#1	6018.9	84351.	4865.6
#2	6032.0	84772.	4851.7

Sample Name: CCB Acquired: 6/16/2015 7:26:07 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0010	-0.0158	.00146	F .02962	-0.0029	.00012	.00386	.00190	.00009	-0.0040	-0.0000	.00023
Stddev	.00061	.00060	.00031	.00102	.00007	.00002	.00050	.00535	.00009	.00046	.00008	.00013
%RSD	613.16	38.134	21.562	3.4555	23.114	15.490	12.941	281.06	106.62	116.22	40272.	55.299

#1	-.00054	-.00201	.00123	.03034	-.00024	.00011	.00351	-.00188	.00015	-.00072	.00006	.00014
#2	.00033	-.00115	.00168	.02890	-.00034	.00013	.00421	.00568	.00002	-.00007	-.00006	.00032

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.00312								
Low Limit				-.00312								

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00111	F 1.4804	W .00516	.00220	-0.00001	.00112	F 2.9368	-0.0024	.00290	-0.00198	.28333	.00036
Stddev	.00191	.0313	.00001	.00187	.00002	.00008	.0568	.00014	.00263	.00052	.01823	.00066
%RSD	171.96	2.1137	.19757	84.805	161.09	7.1253	1.9329	59.482	90.928	26.334	6.4328	183.41

#1	.00024	1.5025	.00516	.00352	-.00003	.00118	2.9769	-.00014	.00476	-.00235	.29622	.00082
#2	-.00247	1.4583	.00517	.00088	.00000	.00107	2.8966	-.00034	.00103	-.00161	.27044	-.00011

Check ?	Chk Pass	Chk Fail	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit		.25000	.00261				.20152					
Low Limit		-.25000	-.00261				-.20152					

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00131	.01209	-0.00023	.00014	-0.00016	.00003	-0.00036	.02082	-0.00084	-0.00306	.00106
Stddev	.00408	.00208	.00002	.00006	.00019	.00050	.00111	.00419	.00006	.00027	.00099
%RSD	310.92	17.193	8.8460	44.995	117.78	1864.6	305.03	20.143	7.6530	8.6816	93.528

#1	-.00419	.01355	-.00021	.00010	-.00003	.00038	.00042	.01785	-.00080	-.00288	.00036
#2	.00157	.01062	-.00024	.00019	-.00029	-.00033	-.00115	.02378	-.00089	-.00325	.00176

Check ?	Chk Pass										
High Limit											
Low Limit											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6169.5	87802.	4886.4
Stddev	10.3	81.	19.9
%RSD	.16676	.09198	.40707

#1	6162.2	87745.	4900.4
#2	6176.8	87859.	4872.3

Sample Name: CCVL3330451 Acquired: 6/16/2015 7:28:49 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00988	.10826	.01359	W .12419	.01101	.00104	W .12375	.20896	.00554	.01059	.01034	.01648
Stddev	.00083	.00064	.00267	.00007	.00018	.00003	.00274	.00426	.00013	.00007	.00012	.00016
%RSD	8.4172	.58679	19.656	.05739	1.5906	2.9962	2.2165	2.0377	2.2888	.63106	1.1831	.97776

#1	.00929	.10871	.01548	.12424	.01113	.00107	.12181	.21197	.00563	.01064	.01025	.01659
#2	.01046	.10781	.01170	.12414	.01088	.00102	.12569	.20595	.00545	.01055	.01042	.01637

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				.10000			.10000					
Range				20.000%			20.000%					

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08340	F 4.3033	F .01678	.21615	.01066	.02059	F 3.3968	.04228	2.9529	.00905	.19753	.00902
Stddev	.00156	.0288	.00057	.00209	.00004	.00022	.0434	.00012	.0099	.00018	.00690	.00175
%RSD	1.8719	.68837	3.3795	.96860	.41218	1.0601	1.2768	.28252	.33408	1.9724	3.4935	19.371

#1	.08229	4.3237	.01718	.21467	.01063	.02043	3.4274	.04236	2.9460	.00917	.20241	.00779
#2	.08450	4.2830	.01638	.21763	.01069	.02074	3.3661	.04219	2.9599	.00892	.19265	.01026

Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value		3.0000	.01000				1.0000					
Range		30.000%	30.000%				30.000%					

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01391	.45163	.10270	.01095	.01465	.01031	.01576	.05018	.00955	.01998	.01624
Stddev	.00245	.00308	.00030	.00011	.00053	.00036	.00044	.03381	.00020	.00028	.00090
%RSD	17.590	.68288	.29056	1.0361	3.6457	3.4507	2.8237	67.377	2.0524	1.4239	5.5285

#1	.01564	.44945	.10249	.01103	.01503	.01006	.01544	.02627	.00969	.02018	.01687
#2	.01218	.45381	.10291	.01087	.01427	.01056	.01607	.07409	.00941	.01978	.01560

Check ?	Chk Pass										
Value											
Range											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6241.5	88422.	4930.8
Stddev	5.3	107.	8.3
%RSD	.08420	.12116	.16738

#1	6245.2	88346.	4924.9
#2	6237.8	88498.	4936.6

Sample Name: 280-70256-G-5-D Acquired: 6/16/2015 7:31:26 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 280758 200.7

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00103	73.430	.02895	4.5245	1.3604	.00516	F - .06390	150.28	.00186
Stddev	.00029	.063	.00184	.0072	.0002	.00000	.00251	.03	.00006
%RSD	28.314	.08525	6.3518	.15905	.01426	.05094	3.9221	.02321	3.1134

#1	-0.00083	73.385	.02765	4.5194	1.3603	.00516	-.06568	150.25	.00190
#2	-0.00124	73.474	.03025	4.5295	1.3606	.00516	-.06213	150.30	.00182

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							100.00		
Low Limit							-.02000		

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	271.441 {124}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02810	.06691	.48021	67.899	28.907	2.4083	50.900	.98793	.08260
Stddev	.00005	.00002	.00086	.013	.132	.0016	.015	.00055	.00023
%RSD	.16902	.03128	.17963	.01858	.45832	.06760	.02963	.05538	.27724

#1	.02813	.06689	.47960	67.890	28.813	2.4095	50.911	.98832	.08276
#2	.02806	.06692	.48082	67.908	29.001	2.4072	50.889	.98754	.08244

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 926.04	.11836	2.7317	.07173	F 346.41	-.00134	.00145	W 60.503	.00745
Stddev	.10	.00015	.0010	.00038	.67	.00283	.00117	.353	.00002
%RSD	.01075	.12330	.03607	.52518	.19446	210.77	80.530	.58325	.30475

#1	926.11	.11825	2.7310	.07146	345.93	.00066	.00228	60.752	.00743
#2	925.97	.11846	2.7324	.07200	346.89	-.00335	.00062	60.253	.00746

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit	500.00				200.00			50.000	
Low Limit	10.000				-.02000			-.10000	

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.9066	.04674	.59134	-.00077	W -.06898	.15820	.48823	.04399
Stddev	.0003	.00258	.00003	.00031	.00794	.00007	.00032	.00089
%RSD	.00924	5.5215	.00534	39.470	11.506	.04316	.06642	2.0200

#1	2.9068	.04491	.59132	-.00099	-.07460	.15825	.48846	.04462
#2	2.9064	.04856	.59136	-.00056	-.06337	.15816	.48800	.04336

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit					45.000			
Low Limit					-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6063.6	82900.	5181.1
Stddev	4.3	237.	21.5
%RSD	.07102	.28625	.41463

#1	6060.6	82732.	5165.9
#2	6066.7	83067.	5196.3

Sample Name: 280-70256-G-5-D SD@5 Acquired: 6/16/2015 7:34:18 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 280758 200.7

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00059	15.712	.00715	1.0337	.28765	.00111	W -0.01470	31.832	.00041
Stddev	.00015	.007	.00252	.0019	.00026	.00007	.00095	.011	.00001
%RSD	25.387	.04242	35.266	.18219	.08915	5.9151	6.4600	.03324	2.0062

#1	-0.00049	15.707	.00894	1.0350	.28747	.00116	-.01537	31.825	.00042
#2	-0.00070	15.717	.00537	1.0324	.28783	.00106	-.01403	31.840	.00040

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass					
High Limit							3.0000		
Low Limit							-.01000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00610	.01479	.10482	13.587	6.4364	.50986	11.141	.21128	.01789
Stddev	.00025	.00009	.00084	.021	.0465	.00221	.013	.00003	.00040
%RSD	4.1011	.59317	.79677	.15096	.72305	.43284	.11850	.01517	2.2551

#1	.00592	.01485	.10542	13.573	6.4693	.50830	11.150	.21130	.01760
#2	.00628	.01473	.10423	13.602	6.4035	.51142	11.131	.21126	.01817

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	196.70	.02620	.56935	.01527	72.798	-.00281	.00010	12.927	.00110
Stddev	.25	.00060	.00109	.00055	.054	.00086	.00080	.079	.00038
%RSD	.12768	2.2751	.19185	3.6028	.07461	30.589	769.01	.60896	34.580

#1	196.52	.02662	.57012	.01488	72.837	-.00341	-.00046	12.983	.00136
#2	196.87	.02578	.56857	.01566	72.760	-.00220	.00067	12.871	.00083

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.61335	.01095	.12649	-.00015	-.01880	.03222	.10121	.01028
Stddev	.00036	.00055	.00025	.00046	.01556	.00012	.00012	.00136
%RSD	.05932	5.0181	.19760	314.43	82.783	.38739	.11377	13.208

#1	.61310	.01056	.12631	.00018	-.00780	.03214	.10113	.01124
#2	.61361	.01134	.12667	-.00047	-.02981	.03231	.10129	.00932

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6072.2	84846.	5005.1
Stddev	5.7	19.	2.1
%RSD	.09315	.02295	.04258

#1	6076.2	84860.	5006.6
#2	6068.2	84832.	5003.6

Sample Name: 280-70256-G-5-B MS Acquired: 6/16/2015 7:36:52 Type: Unk

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broaderl Custom ID1: Custom ID2: Custom ID3:

Comment: 280758 200.7

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05024	158.72	.96199	5.4260	3.5748	.05026	1.6900	191.85	.09817
Stddev	.00003	.61	.00377	.0043	.0106	.00021	.0004	.89	.00023
%RSD	.06377	.38230	.39142	.07992	.29736	.41817	.02166	.46378	.23915

#1	.05026	159.15	.95933	5.4229	3.5823	.05041	1.6897	192.48	.09800
#2	.05021	158.29	.96466	5.4291	3.5673	.05011	1.6903	191.22	.09833

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	271.441 {124}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47235	.29412	.73509	90.105	83.112	3.4296	101.31	1.4989	1.0098
Stddev	.00056	.00002	.00248	.410	.165	.0147	.23	.0035	.0001
%RSD	.11848	.00629	.33771	.45458	.19792	.42886	.22708	.23141	.01246

#1	.47195	.29410	.73334	90.395	83.228	3.4400	101.15	1.4964	1.0099
#2	.47275	.29413	.73685	89.816	82.996	3.4192	101.47	1.5013	1.0097

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 962.47	.56466	12.377	.50559	F 343.17	.25958	1.8704	W 95.304	1.7422
Stddev	4.02	.00084	.015	.00001	.12	.00128	.0034	.797	.0015
%RSD	.41777	.14896	.12349	.00118	.03597	.49493	.18066	.83579	.08506

#1	965.31	.56525	12.366	.50558	343.09	.26049	1.8728	95.867	1.7433
#2	959.63	.56406	12.387	.50559	343.26	.25867	1.8681	94.740	1.7412

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit	500.00				200.00			50.000	
Low Limit	10.000				-.02000			-.10000	

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.8544	.98246	2.0220	1.5733	1.7498	.72438	1.0057	.56611
Stddev	.0148	.00075	.0031	.0034	.0011	.00170	.0012	.00056
%RSD	.38459	.07671	.15478	.21955	.06264	.23444	.11894	.09870

#1	3.8649	.98299	2.0198	1.5758	1.7506	.72318	1.0049	.56651
#2	3.8439	.98193	2.0242	1.5709	1.7491	.72558	1.0066	.56572

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6006.0	82234.	5205.5
Stddev	6.4	80.	14.5
%RSD	.10615	.09709	.27872

#1	6001.5	82291.	5195.3
#2	6010.5	82178.	5215.8

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04976	158.45	.96042	5.3905	3.5616	.04992	1.6946	190.46	.09814
Stddev	.00004	.22	.00296	.0000	.0109	.00005	.0057	.31	.00022
%RSD	.08172	.13935	.30794	.00039	.30717	.10393	.33569	.16159	.22388

#1	.04978	158.61	.96251	5.3905	3.5693	.04989	1.6906	190.68	.09799
#2	.04973	158.30	.95833	5.3905	3.5539	.04996	1.6986	190.24	.09830

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	271.441 {124}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47247	.29286	.73496	89.935	83.205	3.4221	101.16	1.4975	1.0101
Stddev	.00098	.00022	.00134	.100	.090	.0021	.27	.0039	.0003
%RSD	.20806	.07480	.18207	.11109	.10831	.06020	.27095	.25880	.03355

#1	.47316	.29301	.73591	90.005	83.141	3.4236	101.35	1.5003	1.0099
#2	.47177	.29270	.73402	89.864	83.269	3.4207	100.96	1.4948	1.0104

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 956.51	.56371	12.345	.50629	F 341.13	.27463	1.8709	W 88.009	1.7434
Stddev	2.94	.00073	.024	.00043	.42	.00131	.0042	.484	.0025
%RSD	.30755	.12936	.19610	.08543	.12455	.47821	.22159	.54939	.14549

#1	958.59	.56422	12.328	.50598	340.83	.27556	1.8680	88.350	1.7452
#2	954.43	.56319	12.362	.50659	341.43	.27371	1.8738	87.667	1.7416

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit	500.00				200.00			50.000	
Low Limit	10.000				-.02000			-.10000	

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.8314	.98361	2.0096	1.5696	1.7539	.72496	1.0062	.56180
Stddev	.0059	.00251	.0052	.0039	.0002	.00329	.0033	.00077
%RSD	.15400	.25469	.25789	.24881	.01233	.45395	.32982	.13673

#1	3.8356	.98538	2.0132	1.5723	1.7537	.72729	1.0085	.56125
#2	3.8272	.98184	2.0059	1.5668	1.7540	.72263	1.0038	.56234

Check ?	Chk Pass							
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6028.4	82192.	5213.3
Stddev	16.5	161.	4.3
%RSD	.27402	.19636	.08332

#1	6016.8	82078.	5210.2
#2	6040.1	82306.	5216.4

Sample Name: 280-70256-G-6-A Acquired: 6/16/2015 7:42:23 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 280758 200.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00116	.40278	.01052	1.8011	.13398	.00012	-.00465	W 870.22	.00041
Stddev	.00069	.00347	.00538	.0038	.00036	.00011	.00030	10.57	.00023
%RSD	59.636	.86233	51.118	.21344	.26718	98.298	6.3650	1.2142	54.732
#1	.00165	.40033	.01432	1.7984	.13423	.00020	-.00485	877.70	.00025
#2	.00067	.40524	.00672	1.8038	.13372	.00004	-.00444	862.75	.00057
Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								500.00	
Low Limit								-.05000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02704	.00207	.32433	4.0402	43.455	4.3571	457.61	W 14.903	.00472
Stddev	.00007	.00006	.00047	.0087	.377	.0129	4.13	.022	.00024
%RSD	.26078	2.8718	.14503	.21574	.86747	.29630	.90321	.14455	5.0041
#1	.02709	.00203	.32467	4.0464	43.188	4.3662	460.54	14.887	.00456
#2	.02699	.00212	.32400	4.0341	43.721	4.3479	454.69	14.918	.00489
Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								10.000	
Low Limit								-.01000	

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1172.6	.18451	1.4978	.01030	F 300.09	.00362	.02131	11.869	.00076
Stddev	3.0	.00045	.0054	.00005	.82	.00057	.00260	.024	.00043
%RSD	.25252	.24658	.36208	.51161	.27179	15.622	12.191	.20453	56.932
#1	1174.6	.18419	1.4939	.01026	299.51	.00322	.02315	11.887	.00045
#2	1170.5	.18483	1.5016	.01034	300.67	.00402	.01947	11.852	.00106
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00				200.00				
Low Limit	10.000				-.02000				

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 14.567	.00417	.01621	F -.02096	W -.06065	.00242	.95442	.00387
Stddev	.082	.00171	.00044	.00111	.01149	.00063	.00036	.00269
%RSD	.56198	41.135	2.6858	5.3086	18.939	25.994	.03792	69.480
#1	14.625	.00295	.01590	-.02017	-.05252	.00198	.95468	.00197
#2	14.509	.00538	.01652	-.02175	-.06877	.00287	.95417	.00577
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Fail	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit	10.000			20.000	45.000			
Low Limit	-.01000			-.02000	-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5330.6	74273.	4810.8
Stddev	7.2	49.	7.7
%RSD	.13454	.06642	.16103
#1	5335.6	74238.	4816.3
#2	5325.5	74308.	4805.3

Sample Name: 280-70308-B-1-A Acquired: 6/16/2015 7:45:42 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 280758 200.7

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0079	W 3.5254	.00005	.08053	.06635	.00015	-0.00859	60.881	.00011
Stddev	.00002	.0011	.00014	.00073	.00007	.00011	.00004	.105	.00011
%RSD	1.9685	.03078	303.79	.90933	.10476	71.045	.40774	.17246	100.12
#1	-0.00078	3.5246	.00015	.08105	.06630	.00008	-.00856	60.807	.00018
#2	-0.00080	3.5261	-.00005	.08002	.06640	.00023	-.00861	60.955	.00003
Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		500.00							
Low Limit		4.0000							

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00048	.00311	.00982	2.3986	8.8842	.02805	8.9523	.06583	.00200
Stddev	.00010	.00003	.00030	.0107	.0247	.00029	.0171	.00019	.00035
%RSD	21.095	1.1208	3.0364	.44475	.27754	1.0492	.19103	.28632	17.746
#1	.00055	.00309	.00961	2.3911	8.8668	.02784	8.9402	.06596	.00175
#2	.00041	.00313	.01004	2.4062	8.9017	.02825	8.9643	.06569	.00225
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	46.061	.00384	.46512	.00024	29.334	-0.00258	-0.00169	12.122	-0.00056
Stddev	.263	.00034	.00042	.00072	.088	.00005	.00056	.076	.00026
%RSD	.57177	8.8060	.09080	302.44	.29971	2.0299	33.036	.62302	47.007
#1	45.874	.00407	.46542	-.00027	29.396	-.00262	-.00208	12.069	-.00038
#2	46.247	.00360	.46482	.00075	29.271	-.00254	-.00129	12.176	-.00075
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.86753	.00375	.05826	.00022	-.00921	.00673	.03230	.00607
Stddev	.00245	.00209	.00026	.00010	.02952	.00061	.00033	.00050
%RSD	.28294	55.743	.44395	46.624	320.54	9.0316	1.0181	8.2704
#1	.86579	.00227	.05808	.00029	.01167	.00716	.03253	.00571
#2	.86926	.00523	.05845	.00015	-.03009	.00630	.03207	.00642
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6188.2	86629.	5007.4
Stddev	10.4	49.	2.4
%RSD	.16826	.05674	.04823
#1	6195.6	86664.	5005.7
#2	6180.9	86594.	5009.1

Sample Name: 280-70308-B-2-A Acquired: 6/16/2015 7:48:18 Type: Unk
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment: 280758 200.7

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0001	7.1255	.00246	.05304	.07958	.00041	W - .01597	28.615	.00028
Stddev	.00039	.0015	.00011	.00023	.00025	.00006	.00134	.048	.00007
%RSD	3831.3	.02050	4.6300	.42698	.31465	14.199	8.3968	.16723	23.231
#1	-0.0029	7.1245	.00254	.05320	.07976	.00046	-.01692	28.581	.00024
#2	.00027	7.1266	.00238	.05288	.07940	.00037	-.01502	28.649	.00033
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass
High Limit							3.0000		
Low Limit							-.01000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00131	.00484	.01458	5.1963	9.9786	.01894	4.7525	.06572	.00297
Stddev	.00005	.00012	.00014	.0178	.0310	.00054	.0054	.00009	.00011
%RSD	3.4819	2.5671	.95248	.34288	.31063	2.8554	.11293	.13028	3.7253
#1	.00127	.00493	.01448	5.1837	10.000	.01856	4.7563	.06578	.00305
#2	.00134	.00475	.01467	5.2089	9.9566	.01932	4.7487	.06566	.00289
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.575	.00461	.75869	.00166	9.2908	-.00159	.00166	20.355	-.00033
Stddev	.082	.00003	.00115	.00007	.0273	.00147	.00060	.036	.00032
%RSD	.56396	.68801	.15124	4.4384	.29340	92.648	35.974	.17847	97.484
#1	14.517	.00459	.75950	.00160	9.3101	-.00055	.00208	20.329	-.00056
#2	14.634	.00464	.75788	.00171	9.2715	-.00263	.00124	20.380	-.00010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.35999	.00435	.08912	-.00065	-.01888	.01629	.03285	.00843
Stddev	.00059	.00074	.00001	.00012	.00375	.00043	.00012	.00031
%RSD	.16459	17.011	.01134	18.113	19.835	2.6409	.36331	3.6868
#1	.35958	.00487	.08911	-.00057	-.01623	.01659	.03277	.00821
#2	.36041	.00382	.08913	-.00074	-.02153	.01599	.03294	.00865
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	6214.4	86739.	4947.6
Stddev	9.4	83.	8.0
%RSD	.15108	.09597	.16263
#1	6207.7	86798.	4953.3
#2	6221.0	86681.	4941.9

Sample Name: ccvh-3323227 Acquired: 6/16/2015 7:50:52 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .00890	46.401	k -.00207	.02152	k .00035	k -.00010	k .97415	k -.06243	k -.00134	k .00102	k .00080	k .02544
Stddev	.00090	.020	.00370	.00123	.00002	.00001	.00247	.00256	.00006	.00022	.00001	.00016
%RSD	10.091	.04213	178.65	5.7331	6.2123	14.713	.25308	4.1074	4.5128	22.050	1.4021	.61225

#1	k .00827	46.387	k .00054	.02240	k .00034	k -.00011	k .97589	k -.06062	k -.00138	k .00117	k .00079	k .02555
#2	k .00954	46.415	k -.00468	.02065	k .00037	k -.00009	k .97240	k -.06424	k -.00130	k .00086	k .00081	k .02533

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None
Value												
Range												

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	kF 43.337	.27699	k .00974	k -.16295	k .00024	-.00142	270.27	k .00010	.00679	k .00848	5.0351	k -.00182
Stddev	.119	.05583	.00124	.00589	.00010	.00017	1.06	.00030	.00081	.00137	.0151	.00270
%RSD	.27463	20.156	12.707	3.6165	42.010	12.181	.39349	302.34	11.919	16.208	.29933	147.94

#1	k 43.421	.23751	k .01061	k -.16712	k .00031	-.00130	271.02	k .00031	.00736	k .00751	5.0458	k .00008
#2	k 43.253	.31647	k .00886	k -.15879	k .00017	-.00154	269.51	k -.00011	.00621	k .00946	5.0245	k -.00373

Check ?	Chk Fail	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None
Value	50.000											
Range	-10.000%											

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k -.01746	.04604	k .00059	.00048	k 5.0159	k .01948	k -.00265	k 9.6306	k .00256	k -.00171	k .31460
Stddev	.00143	.00250	.00007	.00011	.0100	.00022	.00023	.0295	.00053	.00033	.00051
%RSD	8.1963	5.4280	12.135	23.748	.19915	1.1260	8.7074	.30620	20.652	19.282	.16207

#1	k -.01847	.04781	k .00054	.00040	k 5.0230	k .01963	k -.00282	k 9.6098	k .00294	k -.00148	k .31424
#2	k -.01645	.04427	k .00064	.00056	k 5.0089	k .01932	k -.00249	k 9.6515	k .00219	k -.00194	k .31496

Check ?	None	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value											
Range											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5957.8	82341.	4711.9
Stddev	3.0	153.	18.3
%RSD	.05052	.18555	.38927

#1	5955.7	82233.	4724.8
#2	5959.9	82449.	4698.9

Sample Name: ccv-3330457 Acquired: 6/16/2015 7:53:27 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49001	.50292	.96063	.50879	.54683	.46381	-.05369	4.7119	.50860	.49260	.48864	.50047
Stddev	.00022	.00131	.00212	.00006	.00015	.00001	.00188	.0070	.00023	.00076	.00004	.00068
%RSD	.04460	.26055	.22049	.01208	.02673	.00112	3.4999	.14825	.04509	.15501	.00800	.13580

#1	.48986	.50384	.95914	.50883	.54673	.46381	-.05502	4.7070	.50844	.49206	.48866	.50096
#2	.49016	.50199	.96213	.50875	.54694	.46382	-.05236	4.7169	.50876	.49314	.48861	.49999

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 2.0696	50.535	1.0894	19.641	.49494	.49537	F 6.1429	.49275	.97369	1.0155	.07450	.99395
Stddev	.0010	.049	.0004	.010	.00045	.00046	.0069	.00039	.00070	.0006	.00190	.00042
%RSD	.04568	.09769	.03199	.05333	.09115	.09296	.11289	.07881	.07234	.05706	2.5565	.04261

#1	2.0689	50.501	1.0897	19.634	.49463	.49570	6.1380	.49247	.97319	1.0151	.07584	.99365
#2	2.0703	50.570	1.0892	19.648	.49526	.49504	6.1478	.49302	.97418	1.0159	.07315	.99425

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass				
Value	2.5000						5.0000					
Range	-10.000%						10.000%					

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.96937	4.5407	.98418	.51015	.01801	.50452	1.0152	.00641	.48097	.49295	.47152
Stddev	.00024	.0392	.00173	.00028	.00140	.00006	.0015	.00051	.00094	.00073	.00045
%RSD	.02511	.86333	.17605	.05445	7.7850	.01117	.14940	7.9693	.19525	.14868	.09537

#1	.96920	4.5129	.98540	.51035	.01702	.50448	1.0163	.00605	.48031	.49243	.47184
#2	.96954	4.5684	.98295	.50996	.01900	.50456	1.0141	.00678	.48163	.49346	.47120

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6090.7	85127.	4798.3
Stddev	5.6	248.	4.5
%RSD	.09152	.29177	.09478

#1	6086.7	85302.	4801.5
#2	6094.6	84951.	4795.1

Sample Name: CCB Acquired: 6/16/2015 7:55:53 Type: QC
 Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0028	-0.0062	.00096	F .01582	.00003	.00001	-0.00032	.00517	.00029	-0.00004	-0.00013	.00102
Stddev	.00034	.00031	.00139	.00031	.00072	.00000	.00061	.00180	.00006	.00023	.00027	.00014
%RSD	119.21	50.879	143.87	1.9659	2512.9	21.551	194.20	34.891	19.989	581.96	203.45	13.581

#1	-0.00004	-0.00084	.00194	.01604	-0.00048	.00001	-0.00075	.00389	.00033	-0.00020	-0.00032	.00112
#2	-0.00052	-0.00039	-0.00002	.01560	.00053	.00001	.00012	.00645	.00025	.00012	.00006	.00092

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.00312								
Low Limit				-.00312								

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00412	.22192	W .00508	.00340	.00003	.00127	F .83029	.00034	.00250	-0.00062	.06894	.00077
Stddev	.00115	.09066	.00200	.00063	.00001	.00021	.00467	.00010	.00016	.00082	.00099	.00196
%RSD	27.968	40.853	39.452	18.596	22.594	16.489	.56211	28.285	6.3243	131.67	1.4393	255.96

#1	-0.00493	.28603	.00649	.00385	.00003	.00142	.82699	.00040	.00238	-0.00120	.06964	-0.00062
#2	-0.00331	.15781	.00366	.00296	.00003	.00112	.83359	.00027	.00261	-0.00004	.06824	.00216

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit			.00261				.20152					
Low Limit			-.00261				-.20152					

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00120	.02833	-0.00035	.00015	.00095	.00039	-0.00075	.00344	-0.00083	-0.00324	W .00294
Stddev	.00309	.00498	.00025	.00001	.00181	.00061	.00049	.00637	.00017	.00024	.00191
%RSD	258.31	17.561	72.094	7.0800	191.17	156.92	65.882	185.27	20.465	7.3308	64.797

#1	.00338	.02481	-0.0017	.00014	-0.00033	-0.00004	-0.00109	-0.00107	-0.00071	-0.00307	.00429
#2	-0.00099	.03185	-0.00053	.00016	.00222	.00082	-0.00040	.00794	-0.00095	-0.00340	.00159

Check ?	Chk Pass	Chk Warn	Chk Pass									
High Limit											.00238	
Low Limit											-.00238	

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6163.0	87244.	4777.0
Stddev	.1	116.	.5
%RSD	.00236	.13272	.00949

#1	6162.9	87162.	4776.7
#2	6163.1	87326.	4777.3

Sample Name: CCVL3330451 Acquired: 6/16/2015 7:58:33 Type: QC

Method: 6500_026(v12) Mode: CONC Corr. Factor: 1.000000

User: broanderl Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00986	.11109	.01437	.11351	.01103	.00097	W .12323	.23390	.00558	.01023	.01050	.01680
Stddev	.00050	.00076	.00222	.00050	.00027	.00001	.00098	.00239	.00010	.00001	.00003	.00002
%RSD	5.1103	.68612	15.464	.43723	2.4330	1.2606	.79190	1.0209	1.8165	.10143	.24044	.14030

#1	.00950	.11055	.01280	.11316	.01084	.00098	.12392	.23559	.00551	.01023	.01052	.01681
#2	.01022	.11162	.01594	.11386	.01122	.00096	.12254	.23221	.00565	.01022	.01048	.01678

Check ?	Chk Pass	Chk Warn	Chk Pass									
Value							.10000					
Range							20.000%					

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10493	3.3849	F .01683	.22141	.01088	.02058	F 1.9129	.04247	2.9448	.00902	.06230	.00876
Stddev	.00009	.0851	.00001	.00273	.00011	.00013	.0043	.00004	.0019	.00021	.00563	.00123
%RSD	.08996	2.5145	.03070	1.2309	1.0037	.62898	.22645	.09865	.06591	2.2724	9.0443	13.985

#1	.10487	3.3247	.01683	.22334	.01096	.02049	1.9099	.04244	2.9435	.00917	.06629	.00963
#2	.10500	3.4451	.01683	.21948	.01080	.02067	1.9160	.04249	2.9462	.00888	.05832	.00789

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value			.01000				1.0000					
Range			30.000%				30.000%					

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01343	48718	.10349	.01075	.01446	.01023	.01627	F .09160	.00899	W .02517	.01675
Stddev	.00093	.04077	.00041	.00012	.00151	.00027	.00020	.01328	.00027	.00086	.00117
%RSD	6.9484	8.3694	.39628	1.1272	10.423	2.6367	1.2460	14.496	2.9495	3.4156	6.9602

#1	.01408	.45835	.10378	.01066	.01339	.01042	.01641	.10099	.00918	.02457	.01757
#2	.01277	.51601	.10320	.01083	.01552	.01003	.01613	.08221	.00880	.02578	.01592

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Warn	Chk Pass						
Value								.06000		.02000	
Range								30.000%		20.000%	

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	6257.6	88310.	4852.2
Stddev	17.0	52.	2.3
%RSD	.27106	.05855	.04683

#1	6269.6	88274.	4853.8
#2	6245.7	88347.	4850.6

ICP Data Review Checklist 282100, 282107, 282103

TALS BATCH NUMBER: 282097, 282098, 282099 | Earliest due date: 6/15/15				
Run Date: 6/15/15		Analyst: Laura Browner		Instrument: NT 26
QC programs/Methods Run: 60109, 60108, 200.7				
Review Items	Yes	No	N/A	2nd Level
A. Preparation/Matrix QC				
1. LCS done per prep batch and within QC limits?	/			✓
2. Method blank done per prep batch and < 1/2 RL or CRDL (CLP) or < 2.2x MDL 200.7?	/			✓
3. MS run at required frequency and within limits?	/			✓
4. MSD or DU run at required frequency and RPD within SOP limits?	/			✓
5. Serial dilution done per prep batch (or per SDG for CLP)?	/			✓
6. Post digest spike analyzed if required (CLP, DOD & AFCBE only)? NCM Whether needed for DODV3, DODV4, DODV5, AFCBE 4.0, 6010C?	/			✓
B. Calibration/Instrument Run QC				
1. ICV/CCV analyzed at appropriate frequency and within control limits ? (6010B: CLP = 90 - 110%; 200.7: ICV = 95 - 105%, CCV 90-110%) If not in control, was the ICV or CCV reanalyzed twice to show return to control as per NELAP?	/			✓
2. ICB/CCB analyzed at appropriate frequency and < 1/2 RL or < 2X MDL (DOD V3, AFCBE 4.0)? Was it less than the LODV (DODV4 & DODV5)	/			✓
3. High Standard (HIGH) reanalyzed before samples and recovered within QC limits? (+-5%)	/			✓
4. RL STD run and recovered within QC limits ? (± 50% for non-CLP, ± 20% for DoD V3 / DoD V4 / DoD V5 / AFCBE 4.0 / USACE)	/			✓
5. Was the LLICV/LLCCV analyzed at appropriate frequency for 6010C and within control (+- 30 % or +-20%)	/			✓
6. ICSA/ICSAB run at required frequency and within SOP limits? (ICSA < 2X MDL AFCBE 4.0, DOD V3 or < RL std work or < 2X RL 6010C, DOD V4, DOD V5)	/			✓
C. Sample Results				
1. For 6010B, were samples with concentrations > the linear range for any parameter diluted and reanalyzed? For 200.7, were samples with concentrations within 90% of the linear range diluted and reanalyzed?	/			✓
2. For DOD, were samples with concentrations > the daily linear range for any parameter diluted and reanalyzed?	/			✓
3. Are all reported results bracketed by in control QC?	/			✓
D. Other				
1. Are all nonconformances documented appropriately?	/			✓
2. Calculations checked for errors?	/			✓
3. Transcriptions checked for errors? (Example: Are dilution factors that are entered into the sequence log correct?)	/			✓
4. All client/project specific requirements met?	/			✓
5. Date/time of analysis verified as correct?	/			✓
6. PDF attached, verified uncorrupted?	/			✓

Analyst: Laura Browner

Date: 6/16/15

Comments: _____

2nd Level Reviewer: Mary Beth Miller

Date: 6-18-15

Comments: _____

METALS BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Batch Number: 280888 Batch Start Date: 06/10/15 14:45 Batch Analyst: Sexton, Michael L

Batch Method: 3010A Batch End Date: 06/10/15 19:45

Lab Sample ID	Client Sample I	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	ICP SPK 2B 00025	ICP SPK 3A 00097	
MB 280-280888/1		3010A, 6010C			50 mL	50 mL			
LCS 280-280888/2		3010A, 6010C			50 mL	50 mL	0.5 mL	0.5 mL	
280-70279-B-6	54400-MW55D-06 15	3010A, 6010C	T	<2	50 mL	50 mL			
280-70279-B-6 MS	54400-MW55D-06 15	3010A, 6010C	T	<2	50 mL	50 mL	0.5 mL	0.5 mL	
280-70279-B-6 MSD	54400-MW55D-06 15	3010A, 6010C	T	<2	50 mL	50 mL	0.5 mL	0.5 mL	

Batch Notes	
Lot # of hydrochloric acid	0000097264-04/19
Lot # of Nitric Acid	00000106819-09/19
Hot Block ID number	2
Oven, Bath or Block Temperature 1	91 Degrees C
Oven, Bath or Block Temperature 2	94 Degrees C
Pipette ID	MET-89
ID number of the thermometer	QA-3
Digestion Tube/Cup Lot #	1501179
Uncorrected Temperature	91 Degrees C
Uncorrected Temperature 2	94 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

6010C

METALS BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Batch Number: 281106 Batch Start Date: 06/12/15 09:00 Batch Analyst: Ramirez, Santiago U

Batch Method: 3005A Batch End Date: 06/12/15 14:00

Lab Sample ID	Client Sample I	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	ICP SPK 2B 00025	ICP SPK 3A 00097	
MB 280-281106/1		3005A, 6010C			50 mL	50 mL			
LCS 280-281106/2		3005A, 6010C			50 mL	50 mL	0.5 mL	0.5 mL	
280-70279-C-6	54400-MW55D-06 15	3005A, 6010C	D	<2	50 mL	50 mL			
280-70279-C-6 MS	54400-MW55D-06 15	3005A, 6010C	D	<2	50 mL	50 mL	0.5 mL	0.5 mL	
280-70279-C-6 MSD	54400-MW55D-06 15	3005A, 6010C	D	<2	50 mL	50 mL	0.5 mL	0.5 mL	

Batch Notes	
Lot # of hydrochloric acid	0000097264-04/19
Lot # of Nitric Acid	00000106819-09/19
Hot Block ID number	04
Oven, Bath or Block Temperature 1	95
Oven, Bath or Block Temperature 2	95
Pipette ID	MET-89
Person who witnessed spiking	ch
ID number of the thermometer	QA-4
Digestion Tube/Cup Lot #	1501179
Uncorrected Temperature	95 Celsius
Uncorrected Temperature 2	95 Celsius

Basis	Basis Description
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

6010C

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job Number: 280-70279-1

SDG No.: _____

Project: GSI - McConnell AFB - SWMU 207

Client Sample ID
54400-MW55D-0615

Lab Sample ID
280-70279-6

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 54400-MW55D-0615

Lab Sample ID: 280-70279-6

Lab Name: TestAmerica Denver

Job No.: 280-70279-1

SDG ID.: _____

Matrix: Water

Date Sampled: 06/04/2015 15:10

Reporting Basis WET

Date Received: 06/05/2015 07:00

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Chromium, hexavalent	0.0040	0.020	0.0040	0.0040	mg/L	U		1	7196A
Nitrate as N	1.1	0.50	0.10	0.042	mg/L			1	9056
Nitrite as N	0.10	0.50	0.10	0.049	mg/L	U		1	9056
Chloride	20	3.0	0.50	0.25	mg/L			1	9056A
Sulfate	26	5.0	0.50	0.23	mg/L			1	9056A
Alkalinity	350	5.0	3.2	1.1	mg/L			1	SM 2320B
Bicarbonate Alkalinity as CaCO3	350	5.0	3.2	1.1	mg/L			1	SM 2320B
Carbonate Alkalinity as CaCO3	3.2	5.0	3.2	1.1	mg/L	U		1	SM 2320B
Total Dissolved Solids (TDS)	460	10	10	4.7	mg/L			1	SM 2540C

2-IN
 CALIBRATION QUALITY CONTROL
 GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Analyst: CCJ Batch Start Date: 06/05/2015
 Reporting Units: mg/L Analytical Batch No.: 280576

Sampl e	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	11:39	Chromium, hexavalent	0.0542	0.050 0	108	90-110		CR6 ICV int_00907
2	ICB	11:39	Chromium, hexavalent	0.00430				J	
10	CCV	11:39	Chromium, hexavalent	0.105	0.100	105	90-110		CR6 ICV int_00907
11	CCB	11:39	Chromium, hexavalent	0.00680				J	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

2-IN
 CALIBRATION QUALITY CONTROL
 GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Analyst: TLP Batch Start Date: 06/05/2015
 Reporting Units: mg/L Analytical Batch No.: 280541

Sampl e	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	09:57	Nitrate as N	4.03	4.00	101	90-110		IC ICV 5_00080
			Nitrite as N	4.09	4.00	102	90-110		IC ICV 5_00080
2	ICB	10:14	Nitrate as N	0.10				U	
			Nitrite as N	0.10				U	
18	CCV	14:50	Nitrate as N	5.04	5.00	101	90-110		IC LCS_00279
			Nitrite as N	5.36	5.00	107	90-110		IC LCS_00279
19	CCB	15:07	Nitrate as N	0.10				U	
			Nitrite as N	0.10				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

2-IN
 CALIBRATION QUALITY CONTROL
 GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Analyst: TLP Batch Start Date: 06/05/2015
 Reporting Units: mg/L Analytical Batch No.: 280542

Sampl e	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	09:57	Chloride	81.0	80.0	101	90-110		IC CL ICV_00010
			Sulfate	82.0	80.0	103	90-110		IC SO4 ICV_00014
2	ICB	10:14	Chloride	0.50				U	
			Sulfate	0.50				U	
18	CCV	14:50	Chloride	101	100	101	90-110		IC LCS_00279
			Sulfate	102	100	102	90-110		IC LCS_00279
19	CCB	15:07	Chloride	0.50				U	
			Sulfate	0.50				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

2-IN
 CALIBRATION QUALITY CONTROL
 GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-70279-1
 SDG No.: _____
 Analyst: CCJ Batch Start Date: 06/12/2015
 Reporting Units: mg/L Analytical Batch No.: 281711

Sampl e	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
16	CCV	12:53	Alkalinity	192	200	96	90-110		Alk daily lcs_00476
17	CCB	12:57	Alkalinity	3.2				U	
28	CCV	13:47	Alkalinity	192	200	96	90-110		Alk daily lcs_00476
29	CCB	13:51	Alkalinity	3.2				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver

Job No.: 280-70279-1

SDG No.: _____

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 280576 Date: 06/05/2015 11:39							
7196A	MB 280-280576/5	Chromium, hexavalent	0.0040	U	mg/L	0.020	1
Batch ID: 280541 Date: 06/05/2015 11:21							
9056	MB 280-280541/6	Nitrate as N	0.10	U	mg/L	0.50	1
9056	MB 280-280541/6	Nitrite as N	0.10	U	mg/L	0.50	1
Batch ID: 280542 Date: 06/05/2015 11:21							
9056A	MB 280-280542/6	Chloride	0.50	U	mg/L	3.0	1
9056A	MB 280-280542/6	Sulfate	0.50	U	mg/L	5.0	1
Batch ID: 281711 Date: 06/12/2015 11:59							
SM 2320B	MB 280-281711/5	Alkalinity	3.2	U	mg/L	5.0	1
SM 2320B	MB 280-281711/5	Bicarbonate Alkalinity as CaCO3	3.2	U	mg/L	5.0	1
SM 2320B	MB 280-281711/5	Carbonate Alkalinity as CaCO3	3.2	U	mg/L	5.0	1
Batch ID: 280587 Date: 06/05/2015 14:21							
SM 2540C	MB 280-280587/1	Total Dissolved Solids (TDS)	10	U	mg/L	10	1

5-IN
 MATRIX SPIKE SAMPLE RECOVERY
 GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD T.imi	Q
Batch ID: 280576 Date: 06/05/2015 11:39											
7196A	280-70279-6	Chromium, hexavalent	0.0040	U	mg/L						
7196A	280-70279-6	Chromium, hexavalent	0.101		mg/L	0.100	101	90-111			
MS											
Batch ID: 280541 Date: 06/05/2015 12:12											
9056	280-70279-6	Nitrate as N	1.1		mg/L						
9056	280-70279-6	Nitrate as N	6.14		mg/L	5.00	101	88-111			
MS											
9056	280-70279-6	Nitrite as N	0.10	U	mg/L						
9056	280-70279-6	Nitrite as N	5.24		mg/L	5.00	105	87-111			
MS											
Batch ID: 280542 Date: 06/05/2015 12:12											
9056A	280-70279-6	Chloride	20		mg/L						
9056A	280-70279-6	Chloride	46.6		mg/L	25.0	107	87-111			
MS											
9056A	280-70279-6	Sulfate	26		mg/L						
9056A	280-70279-6	Sulfate	52.9		mg/L	25.0	107	87-112			
MS											

Calculations are performed before rounding to avoid round-off errors in calculated results.

5-IN
 MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
 GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD T.imi	Q
Batch ID: 280576 Date: 06/05/2015 11:39											
7196A	280-70279-6	Chromium, hexavalent	0.100		mg/L	0.100	100	90-111	1	20	
MSD											
Batch ID: 280541 Date: 06/05/2015 12:29											
9056	280-70279-6	Nitrate as N	6.18		mg/L	5.00	101	88-111	1	10	
MSD											
9056	280-70279-6	Nitrite as N	5.31		mg/L	5.00	106	87-111	1	10	
MSD											
Batch ID: 280542 Date: 06/05/2015 12:29											
9056A	280-70279-6	Chloride	46.9		mg/L	25.0	108	87-111	1	10	
MSD											
9056A	280-70279-6	Sulfate	53.2		mg/L	25.0	108	87-112	1	10	
MSD											

Calculations are performed before rounding to avoid round-off errors in calculated results.

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Lim	Qual
Batch ID: 280576 Date: 06/05/2015 11:39								
7196A	54400-MW55D-0615	280-70279-6	Chromium, hexavalent	0.0040	mg/L			U
7196A	54400-MW55D-0615	280-70279-6 DU	Chromium, hexavalent	0.0040	mg/L	NC	20	U
Batch ID: 280541 Date: 06/05/2015 11:55								
9056	54400-MW55D-0615	280-70279-6	Nitrate as N	1.1	mg/L			
9056	54400-MW55D-0615	280-70279-6 DU	Nitrate as N	1.10	mg/L	1	10	
9056	54400-MW55D-0615	280-70279-6	Nitrite as N	0.10	mg/L			U
9056	54400-MW55D-0615	280-70279-6 DU	Nitrite as N	0.10	mg/L	NC	10	U
Batch ID: 280542 Date: 06/05/2015 11:55								
9056A	54400-MW55D-0615	280-70279-6	Chloride	20	mg/L			
9056A	54400-MW55D-0615	280-70279-6 DU	Chloride	20.0	mg/L	0.2	10	
9056A	54400-MW55D-0615	280-70279-6	Sulfate	26	mg/L			
9056A	54400-MW55D-0615	280-70279-6 DU	Sulfate	25.2	mg/L	3	10	M

Calculations are performed before rounding to avoid round-off errors in calculated results.

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limi	Q
Batch ID: 280576 Date: 06/05/2015 11:39											
						LCS Source: CR6 spike sou_00521					
7196A	LCS 280-280576/3	Chromium, hexavalent	0.100		mg/L	0.100	100	90-111	2	20	
Batch ID: 280541 Date: 06/05/2015 10:48											
						LCS Source: IC LCS_00279					
9056	LCS 280-280541/4	Nitrate as N	5.01		mg/L	5.00	100	88-111	0	10	
9056	LCS 280-280541/4	Nitrite as N	5.34		mg/L	5.00	107	87-111	1	10	
Batch ID: 280542 Date: 06/05/2015 10:48											
						LCS Source: IC LCS_00279					
9056A	LCS 280-280542/4	Chloride	101		mg/L	100	101	87-111	0	10	
9056A	LCS 280-280542/4	Sulfate	102		mg/L	100	102	87-112	0	10	
Batch ID: 281711 Date: 06/12/2015 11:55											
						LCS Source: Alk daily lcs_00476					
SM 2320B	LCS 280-281711/4	Alkalinity	190		mg/L	200	95	90-110			
Batch ID: 280587 Date: 06/05/2015 14:21											
						LCS Source: TDS LCS_00536_00058					
SM 2540C	LCS 280-280587/2	Total Dissolved Solids (TDS)	495		mg/L	501	99	86-110			

Calculations are performed before rounding to avoid round-off errors in calculated results.

7A-IN
 LAB CONTROL SAMPLE DUPLICATE
 GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limi	Q
Batch ID: 280576 Date: 06/05/2015 11:39											
						LCSD Source: CR6 spike sou_00521					
7196A	LCSD 280-280576/4	Chromium, hexavalent	0.0983		mg/L	0.100	98	90-111	2	20	
Batch ID: 280541 Date: 06/05/2015 11:04											
						LCSD Source: IC LCS_00279					
9056	LCSD 280-280541/5	Nitrate as N	5.01		mg/L	5.00	100	88-111	0	10	
9056	LCSD 280-280541/5	Nitrite as N	5.37		mg/L	5.00	107	87-111	1	10	
Batch ID: 280542 Date: 06/05/2015 11:04											
						LCSD Source: IC LCS_00279					
9056A	LCSD 280-280542/5	Chloride	101		mg/L	100	101	87-111	0	10	
9056A	LCSD 280-280542/5	Sulfate	102		mg/L	100	102	87-112	0	10	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
METHOD REPORTING LIMIT CHECK
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limi	Q
Batch ID: 280541		Date: 06/05/2015 10:31		LCS Source: IC Cal low_00092							
9056	MRL 280-280541/3	Nitrate as N	0.217	J	mg/L	0.200	109	50-150			
9056	MRL 280-280541/3	Nitrite as N	0.171	J	mg/L	0.200	86	50-150			
Batch ID: 280542		Date: 06/05/2015 10:31		LCS Source: IC CAL cl/so4_00051							
9056A	MRL 280-280542/3	Chloride	2.58	J	mg/L	2.50	103	50-150			
9056A	MRL 280-280542/3	Sulfate	2.54	J	mg/L	2.50	102	50-150			

Calculations are performed before rounding to avoid round-off errors in calculated results.

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job Number: 280-70279-1
SDG Number: _____
Matrix: Water Instrument ID: WC_HSPEC_7196
Method: 7196A DL Date: 02/16/2014 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Chromium, hexavalent		0.02	0.004

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job Number: 280-70279-1
SDG Number: _____
Matrix: Water Instrument ID: WC_HSPEC_7196
Method: 7196A XMDL Date: 05/16/2013 14:49

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Chromium, hexavalent		0.02	0.004

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver

Job Number: 280-70279-1

SDG Number: _____

Matrix: Water

Instrument ID: WC_IonChrom8

Method: 9056

DL Date: 02/16/2014 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Nitrate as N		0.5	0.042
Nitrite as N		0.5	0.049

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver

Job Number: 280-70279-1

SDG Number: _____

Matrix: Water

Instrument ID: WC_IonChrom8

Method: 9056

XMDL Date: 02/16/2014 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Nitrate as N		0.5	0.042
Nitrite as N		0.5	0.049

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver

Job Number: 280-70279-1

SDG Number: _____

Matrix: Water

Instrument ID: WC_IonChrom8

Method: 9056A

DL Date: 02/16/2014 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Chloride		3	0.254
Sulfate		5	0.232

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver

Job Number: 280-70279-1

SDG Number: _____

Matrix: Water

Instrument ID: WC_IonChrom8

Method: 9056A

XMDL Date: 02/16/2014 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Chloride		3	0.254
Sulfate		5	0.232

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver

Job Number: 280-70279-1

SDG Number: _____

Matrix: Water

Instrument ID: WC-AT3

Method: SM 2320B

DL Date: 03/28/2011 12:06

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Alkalinity		5	1.07
Bicarbonate Alkalinity as CaCO3		5	1.07
Carbonate Alkalinity as CaCO3		5	1.07

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver

Job Number: 280-70279-1

SDG Number: _____

Matrix: Water

Instrument ID: WC-AT3

Method: SM 2320B

XMDL Date: 03/28/2011 12:06

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Alkalinity		5	1.07
Bicarbonate Alkalinity as CaCO3		5	1.07
Carbonate Alkalinity as CaCO3		5	1.07

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver

Job Number: 280-70279-1

SDG Number: _____

Matrix: Water

Instrument ID: WC_Cond_Orion

Method: SM 2540C

DL Date: 10/07/2011 10:03

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Total Dissolved Solids (TDS)		10	4.7

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver

Job Number: 280-70279-1

SDG Number: _____

Matrix: Water

Instrument ID: WC_Cond_Orion

Method: SM 2540C

XMDL Date: 10/11/2010 11:58

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Dissolved Solids (TDS)		10	4.7

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Instrument ID: WC_HSPEC_7196 Method: 7196A

Start Date: 06/05/2015 11:39 End Date: 06/05/2015 12:00

Lab Sample ID	D / F	T y p e	Time	Analytes															
				C r 6															
ICV 280-280576/1	1		11:39	X															
ICB 280-280576/2	1		11:39	X															
LCS 280-280576/3	1	T	11:39	X															
LCSD 280-280576/4	1	T	11:39	X															
MB 280-280576/5	1	T	11:39	X															
280-70279-6	1	T	11:39	X															
280-70279-6 DU	1	T	11:39	X															
280-70279-6 MS	1	T	11:39	X															
280-70279-6 MSD	1	T	11:39	X															
CCV 280-280576/10	1		11:39	X															
CCB 280-280576/11	1		11:39	X															
ZZZZZZ			11:39																
ZZZZZZ			11:39																
ZZZZZZ			11:39																
ZZZZZZ			11:39																
ZZZZZZ			12:00																
ZZZZZZ			12:00																
ZZZZZZ			12:00																
CCV 280-280576/15			12:00																
CCB 280-280576/16			12:00																

Prep Types
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Instrument ID: WC_IonChrom8 Method: 9056

Start Date: 06/05/2015 09:57 End Date: 06/06/2015 01:07

Lab Sample ID	D / F	T y p e	Time	Analytes															
				N - N o 2	N O 3														
ICV 280-280541/1	1		09:57	X	X														
ICB 280-280541/2	1		10:14	X	X														
MRL 280-280541/3	1	T	10:31	X	X														
LCS 280-280541/4	1	T	10:48	X	X														
LCSD 280-280541/5	1	T	11:04	X	X														
MB 280-280541/6	1	T	11:21	X	X														
280-70279-6	1	T	11:38	X	X														
280-70279-6 DU	1	T	11:55	X	X														
280-70279-6 MS	1	T	12:12	X	X														
280-70279-6 MSD	1	T	12:29	X	X														
ZZZZZZ			13:09																
ZZZZZZ			13:26																
ZZZZZZ			13:43																
ZZZZZZ			13:59																
ZZZZZZ			14:16																
ZZZZZZ			14:33																
CCV 280-280541/18	1		14:50	X	X														
CCB 280-280541/19	1		15:07	X	X														
ZZZZZZ			15:23																
ZZZZZZ			15:40																
ZZZZZZ			15:57																
CCV 280-280541/31			18:12																
CCB 280-280541/32			18:28																
ZZZZZZ			20:55																
ZZZZZZ			21:12																
ZZZZZZ			21:29																
ZZZZZZ			21:46																
ZZZZZZ			22:02																
ZZZZZZ			22:19																
CCV 280-280541/43			22:36																
CCB 280-280541/44			22:53																
ZZZZZZ			23:10																
ZZZZZZ			23:26																
ZZZZZZ			23:43																
ZZZZZZ			00:00																
ZZZZZZ			00:17																
ZZZZZZ			00:34																
CCV 280-280541/51			00:50																
CCB 280-280541/52			01:07																

Prep Types
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Instrument ID: WC_IonChrom8 Method: 9056A

Start Date: 06/05/2015 09:57 End Date: 06/06/2015 01:07

Lab Sample ID	D / F	T y p e	Time	Analytes															
				C L -	S O 4														
ICV 280-280542/1	1		09:57	X	X														
ICB 280-280542/2	1		10:14	X	X														
MRL 280-280542/3	1	T	10:31	X	X														
LCS 280-280542/4	1	T	10:48	X	X														
LCSD 280-280542/5	1	T	11:04	X	X														
MB 280-280542/6	1	T	11:21	X	X														
280-70279-6	1	T	11:38	X	X														
280-70279-6 DU	1	T	11:55	X	X														
280-70279-6 MS	1	T	12:12	X	X														
280-70279-6 MSD	1	T	12:29	X	X														
ZZZZZZ			13:09																
ZZZZZZ			13:26																
ZZZZZZ			13:43																
ZZZZZZ			13:59																
ZZZZZZ			14:16																
ZZZZZZ			14:33																
CCV 280-280542/18	1		14:50	X	X														
CCB 280-280542/19	1		15:07	X	X														
ZZZZZZ			15:23																
ZZZZZZ			15:40																
ZZZZZZ			15:57																
ZZZZZZ			16:14																
ZZZZZZ			16:31																
ZZZZZZ			16:48																
ZZZZZZ			17:04																
ZZZZZZ			17:21																
ZZZZZZ			17:38																
ZZZZZZ			17:55																
CCV 280-280542/31			18:12																
CCB 280-280542/32			18:28																
ZZZZZZ			18:45																
ZZZZZZ			19:02																
ZZZZZZ			19:19																
ZZZZZZ			19:36																
ZZZZZZ			20:55																
ZZZZZZ			21:12																
ZZZZZZ			21:29																
ZZZZZZ			21:46																
ZZZZZZ			22:02																
ZZZZZZ			22:19																
CCV 280-280542/43			22:36																
CCB 280-280542/44			22:53																

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Instrument ID: WC_IonChrom8 Method: 9056A

Start Date: 06/05/2015 09:57 End Date: 06/06/2015 01:07

Lab Sample ID	D / F	T y p e	Time	Analytes																
				C L -	S O 4															
ZZZZZZ			23:10																	
ZZZZZZ			23:26																	
ZZZZZZ			23:43																	
ZZZZZZ			00:00																	
ZZZZZZ			00:17																	
ZZZZZZ			00:34																	
CCV 280-280542/51			00:50																	
CCB 280-280542/52			01:07																	

Prep Types
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Instrument ID: WC-AT3 Method: SM 2320B

Start Date: 06/12/2015 11:39 End Date: 06/12/2015 17:02

Lab Sample ID	D / F	T y p e	Time	Analytes															
				A l k	B A L K C	C a r A l													
RINSE 280-281711/1			11:39																
ZZZZZZ			11:45																
ZZZZZZ			11:50																
LCS 280-281711/4	1	T	11:55	X															
MB 280-281711/5	1	T	11:59	X	X	X													
ZZZZZZ			12:04																
ZZZZZZ			12:08																
ZZZZZZ			12:12																
ZZZZZZ			12:18																
ZZZZZZ			12:22																
ZZZZZZ			12:28																
ZZZZZZ			12:33																
ZZZZZZ			12:38																
ZZZZZZ			12:43																
ZZZZZZ			12:47																
CCV 280-281711/16	1		12:53	X															
CCB 280-281711/17	1		12:57	X															
ZZZZZZ			13:01																
ZZZZZZ			13:06																
ZZZZZZ			13:10																
ZZZZZZ			13:15																
ZZZZZZ			13:19																
ZZZZZZ			13:25																
ZZZZZZ			13:29																
ZZZZZZ			13:34																
280-70279-6	1	T	13:38	X	X	X													
ZZZZZZ			13:42																
CCV2 280-281711/28	1		13:47	X															
CCB2 280-281711/29	1		13:51	X															
ZZZZZZ			13:56																
ZZZZZZ			14:00																
ZZZZZZ			14:04																
ZZZZZZ			14:08																
ZZZZZZ			14:13																
ZZZZZZ			14:16																
ZZZZZZ			14:25																
ZZZZZZ			14:29																
ZZZZZZ			14:34																
ZZZZZZ			14:39																
ZZZZZZ			14:44																
ZZZZZZ			14:48																
CCV3 280-281711/42			14:53																

Data Review Checklist – Calibration Methods

Method(s): 7196A	Instrument: HACH	Run Date 6/5/15	Analyst Initials: CA	SOP #: WCO021
Prep Batch(s): NA		Analytical Batch: 280576		

A. Calibration/Instrument Run QC	Yes	No	N/A	2nd
Minimum of five standards in ICAL or as specified in SOP?	✓			
Correlation coefficient ≥ 0.995 ?	✓			
Second-source ICV analyzed, and recovery within acceptance limits?	✓			✓
ICB analyzed immediately after the ICV & results < the RL	✓			✓
CCV analyzed after every ten samples & recovery within acceptance limits?	✓			✓
CCB analyzed after every CCV & results < RL?	✓			✓
Absolute value of the x intercept is < ± ½ the RL?	✓			✓
Elution order verified? (anions)			✓	✓
Were manual integrations performed correctly and properly documented? (anions)			✓	✓
B. Sample Results				
All samples greater than highest calibration standard diluted and reanalyzed?	✓			✓
Do associated RLs/MDLs reflect dilutions or limited sample volume?	✓			✓
All reported results bracketed by in control CCV results?	✓			✓
Sample analyses done within holding time? If no, create HTV NCM. NCM #	✓			✓
Are any results over calibration range? If reported, are results E flagged?		✓		✓
Are J values the result of over dilution?		✓		✓
Client requirements reviewed and met?	✓			✓
Were data manually transcribed from instrument printouts or benchsheets into TALS verified 100% including dilution factors, significant figures and correct units? (If Applicable)			✓	✓
Do the prep and analysis dates in TALS reflect the actual dates?	✓			
Were peak assignments verified? (anions)			✓	✓
Were manual integrations performed correctly and properly documented? (anions)			✓	✓
C. Preparation/Matrix QC				
Method blank < ½ RL or all reported samples > 10x blank have NCM? - (COD, Phenol MB <RL)	✓			✓
Method blank < ½ RL or NCM provided? - (COD, Phenol MB <RL)	✓			✓
LCS/LCSD run for batch and within QC limits?	✓			✓
MS/MSD run at required frequency? Verify that MS/MSD failures are matrix issues and not analytical issues such as not spiking or not applying the appropriate dilution.	✓			✓
DUP run at required frequency?	✓			✓

Menu or Tab	Check	1 st	2 nd
Analyst Desktop	Create or open batch		
View Batch Info	Confirm all fields are populated	✓	✓
	Edit Analyst ID as is appropriate	✓	✓
Run log	Verify the correct samples and QC are run at the correct frequency (i.e., 10 samples per CCV)	✓	✓
Sample List	Confirm all Graphics have been uploaded (IC only)	✓	✓
	In edit mode, If prompted to process samples, select "Yes"	✓	✓
	Confirm samples are identified (Blue P Icon)	✓	✓
	Confirm correct analysis date and time are listed	✓	✓
Worksheet	Confirm samples have the correct dilution factors. TOC – Check for manual dilutions not entered into instrument run log, Auto dilutions (Aut. Dil.) and Injections volume (Inj. Vol.)	✓	✓
	Confirm samples have the correct method chain assigned	✓	✓
	Confirm that solid samples have the % moisture listed	✓	✓
Worksheet	Populate all appropriate fields in the worksheet. Initial Amount, Final Amount, pH, etc.	✓	✓
Reagents	Confirm reagents are correct and properly associated with QC samples. Confirm that reagent amounts are correct. If reagents are new, verify that the correct COA has been attached to the source standard	✓	✓
Results	Check for special instructions (Login, Method and Sample comments) - red notebook icon	✓	✓
	Check for any QC failures	✓	✓
	Set status for samples based on QC and sample results info (i.e., set to primary analysis with passing QC or reject samples without passing QC or samples that are over-range).	✓	✓
	Address any results that are reported without passing QC with an NCM	✓	✓
QC Links	Confirm QC links are correct	✓	✓
Hist. Data Check	Check historical data. Print charts for outliers. Take corrective action as is appropriate	✓	✓
Sample List	Re-calculate data and set to appropriate review status (1 st or 2 nd level review)	✓	✓
	Scan and attach raw data & save batch	✓	✓

Analyst: CA	Date: 6/8/15	2nd Level Reviewer: Caitlyn Mahoney	Date: 6/8/15
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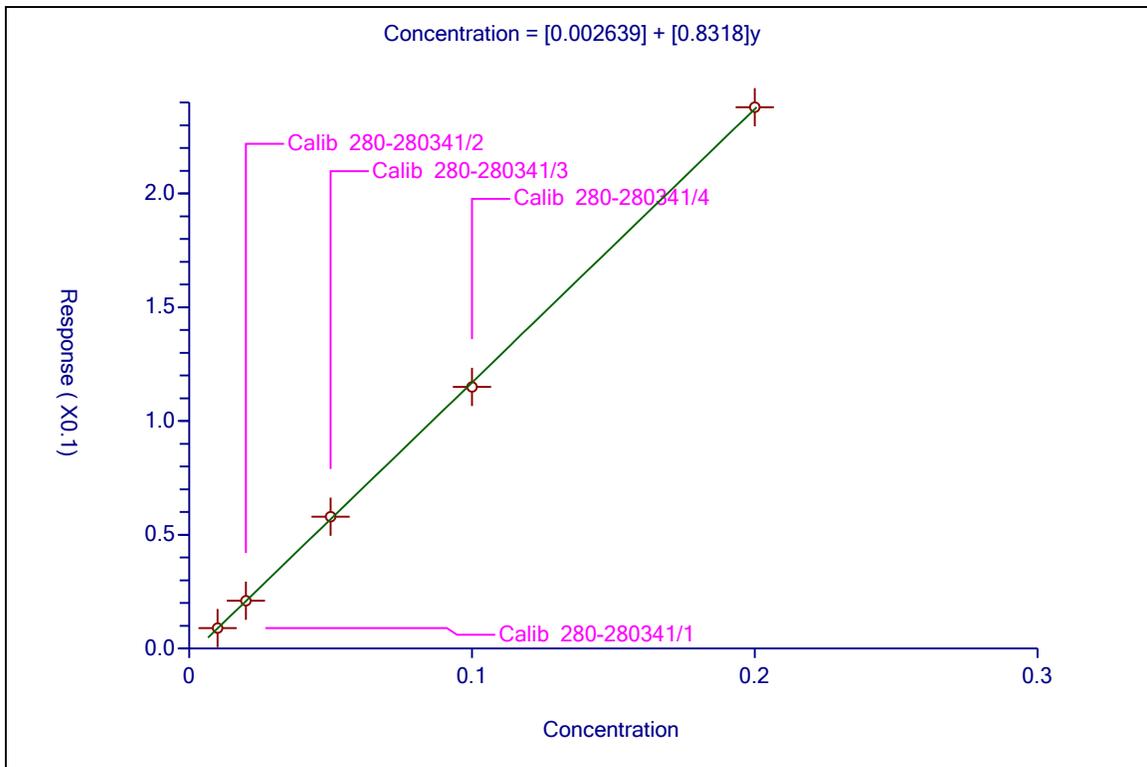
Calibration

Calib 280341-0 / Cr (VI)

Curve Type: Linear
 Weighting: None
 Origin: None
 Dependency: Concentration
 Calib Mode: ESTD
 RF Rounding: 0

Curve Coefficients	
Intercept:	0.002639
Slope:	0.8318
Error Coefficients	
Standard Error:	0.001166
Relative Standard Error:	1.629
Correlation Coefficient:	0.9999
Coefficient of Determination (Adjusted):	0.9998 (0.9998)

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	Calib 280-280341/1	0.01	0.009			0.9	Y
2	Calib 280-280341/2	0.02	0.021			1.05	Y
3	Calib 280-280341/3	0.05	0.058			1.16	Y
4	Calib 280-280341/4	0.1	0.115			1.15	Y
5	Calib 280-280341/5	0.2	0.238			1.19	Y



TALS Raw Data Report

Job Number: 280-70277-1
 LIMS Batch: 280576
 Equipment: WC_HSPEC_7196

Laboratory: TestAmerica Denver

RS#	Lab ID	Inj Date	Dil	Meth				
1	ICV 280-280576/1	6/5/2015 11:39:09AM	1.0	7196A_DOD				
	Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
	Cr (VI)	0.062	.05421060 mg/L	mg/L	108	90 110		
2	ICB 280-280576/2	6/5/2015 11:39:09AM	1.0	7196A_DOD				
	Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
	Cr (VI)	0.002	.04302600 mg/L	.0430 J mg/L				
3	LCS 280-280576/3	6/5/2015 11:39:09AM	1.0	7196A_DOD				
	Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
	Cr (VI)	0.117	.09995960 mg/L	mg/L	100	85 115		
4	LCSD 280-280576/4	6/5/2015 11:39:09AM	1.0	7196A_DOD				
	Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
	Cr (VI)	0.115	.09829600 mg/L	mg/L	98	85 115	2	20
5	MB 280-280576/5	6/5/2015 11:39:09AM	1.0	7196A_DOD				
	Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
	Cr (VI)	0.001	.03470800 mg/L	.0040 U mg/L				
6	280-70279-A-6	6/5/2015 11:39:09AM	1.0	7196A_DOD				
	Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
	Cr (VI)	-0.0020	.00975400 mg/L	.0040 U mg/L				
7	280-70279-A-6 DU	6/5/2015 11:39:09AM	1.0	7196A_DOD				
	Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
	Cr (VI)	0.0000	.02639000 mg/L	.0040 U mg/L			NC	20
8	280-70279-A-6 MS	6/5/2015 11:39:09AM	1.0	7196A_DOD				
	Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
	Cr (VI)	0.1180	.10079140 mg/L	mg/L	101	85 115		
9	280-70279-A-6 MSD	6/5/2015 11:39:09AM	1.0	7196A_DOD				
	Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
	Cr (VI)	0.1170	.099959600 mg/L	mg/L	100	85 115	1	20
10	CCV 280-280576/10	6/5/2015 11:39:09AM	1.0	7196A_DOD				
	Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
	Cr (VI)	0.123	0.1049504 mg/L	mg/L	105	90 110		
11	CCB 280-280576/11	6/5/2015 11:39:09AM	1.0	7196A_DOD				
	Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
	Cr (VI)	0.005	.06798000 mg/L	.0680 J mg/L				
12	280-70277-B-5	6/5/2015 12:00:00PM	1.0	7196A_DOD				
	Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
	Cr (VI)	0.0730	.063360400 mg/L	mg/L				
13	280-70277-B-6	6/5/2015 12:00:00PM	1.0	7196A_DOD				
	Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
	Cr (VI)							

TALS Raw Data Report

Cr (VI) 0.0070 008461600 mg/L 0.0085 J mg/L

RS# 14 Lab ID: **280-70277-B-7** Inj Date: 6/5/2015 12:00:00PM Dil: 1.0 Meth: 7196A_DOD

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Cr (VI)	0.0040	005966200 mg/L	0.0060 J mg/L				

RS# 15 Lab ID: **CCV 280-280576/15** Inj Date: 6/5/2015 12:00:00PM Dil: 1.0 Meth: 7196A_DOD

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Cr (VI)	0.127	0.1082776 mg/L	mg/L	108	90	110	

RS# 16 Lab ID: **CCB 280-280576/16** Inj Date: 6/5/2015 12:00:00PM Dil: 1.0 Meth: 7196A_DOD

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Cr (VI)	0.007	008461600 mg/L	00846 J mg/L				

TALS Raw Data Report

Job Number: 280-70279-1
 LIMS Batch: 280576
 Equipment: WC_HSPEC_7196

Laboratory: TestAmerica Denver

RS#	Lab ID	Inj Date	Dil	Meth				
1	ICV 280-280576/1	6/5/2015 11:39:09AM	1.0	7196A_DOD5				
	Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
	Cr (VI)	0.062	.05421060 mg/L	mg/L	108	90 110		
2	ICB 280-280576/2	6/5/2015 11:39:09AM	1.0	7196A_DOD5				
	Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
	Cr (VI)	0.002	.004302600 mg/L	.00430 J mg/L				
3	LCS 280-280576/3	6/5/2015 11:39:09AM	1.0	7196A_DOD5				
	Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
	Cr (VI)	0.117	.09995960 mg/L	mg/L	100	90 111		
4	LCSD 280-280576/4	6/5/2015 11:39:09AM	1.0	7196A_DOD5				
	Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
	Cr (VI)	0.115	.09829600 mg/L	mg/L	98	90 111	2	20
5	MB 280-280576/5	6/5/2015 11:39:09AM	1.0	7196A_DOD5				
	Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
	Cr (VI)	0.001	.003470800 mg/L	.0040 U mg/L				
6	280-70279-A-6	6/5/2015 11:39:09AM	1.0	7196A_DOD5				
	Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
	Cr (VI)	-0.0020	.00975400 mg/L	.0040 U mg/L				
7	280-70279-A-6 DU	6/5/2015 11:39:09AM	1.0	7196A_DOD5				
	Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
	Cr (VI)	0.0000	.002639000 mg/L	.0040 U mg/L			NC	20
8	280-70279-A-6 MS	6/5/2015 11:39:09AM	1.0	7196A_DOD5				
	Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
	Cr (VI)	0.1180	.10079140 mg/L	mg/L	101	90 111		
9	280-70279-A-6 MSD	6/5/2015 11:39:09AM	1.0	7196A_DOD5				
	Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
	Cr (VI)	0.1170	.099959600 mg/L	mg/L	100	90 111	1	20
10	CCV 280-280576/10	6/5/2015 11:39:09AM	1.0	7196A_DOD5				
	Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
	Cr (VI)	0.123	0.1049504 mg/L	mg/L	105	90 110		
11	CCB 280-280576/11	6/5/2015 11:39:09AM	1.0	7196A_DOD5				
	Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
	Cr (VI)	0.005	.006798000 mg/L	.00680 J mg/L				

TALS Raw Data Report

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\Anions_IC8.m

Instrument: WC_IonChrom8

Lims Location: 280

Lock State: Unlocked

Cpnd Order: Retention Time

Integrator: Falcon

Last Modified: 16-May-2015 08:22:09

No.Compounds:7

Initial Calibration Batches

Ical Batch: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b

Inj Date : 15-May-2015 11:49:00, Sublist: chrom-Anions_IC8*sub1

Detector 1: 0005

Compound	Wet - Anions				Wet - Anions 28D			
	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride	807695	2605614		0.999	807695	2605614		0.999
2 Chloride	-171611	1729726		1.000	-171611	1729726		1.000
3 Nitrite as N	2035263	3459668		0.998	2035263	3459668		0.998
4 Bromide	-521371	7317374		1.000	-521371	7317374		1.000
5 Nitrate as N	-108450	4449596		1.000	-108450	4449596		1.000
6 Sulfate	-403177	1255461		1.000	-403177	1255461		1.000
7 Orthophosphate as P	2204503	1848477		0.997	2204503	1848477		0.997

Data Review Checklist – Calibration Methods

Method(s): 300/9056	Instrument: ICB	Run Date 5/15/15	Analyst Initials: TP [Signature]	SOP #: WC-0020
	Prep Batch(s): N/A		Analytical Batch: 277676 - 277677	

A. Calibration/Instrument Run QC	Yes	No	N/A	2nd
Minimum of five standards in ICAL or as specified in SOP?	✓			
Correlation coefficient ≥ 0.995 ?	✓			
Second-source ICV analyzed, and recovery within acceptance limits?	✓			✓
ICB analyzed immediately after the ICV & results < the RL	✓			✓
CCV analyzed after every ten samples & recovery within acceptance limits?	✓			✓
CCB analyzed after every CCV & results < RL?	✓			✓
Absolute value of the x intercept is < ± 1/2 the RL?	✓			✓
Elution order verified? (anions)	✓			✓
Were manual integrations performed correctly and properly documented? (anions)	✓			✓
B. Sample Results				
All samples greater than highest calibration standard diluted and reanalyzed?	✓			✓
Do associated RLs/MDLs reflect dilutions or limited sample volume?	✓			✓
All reported results bracketed by in control CCV results?	✓			✓
Sample analyses done within holding time? If no, create HTV NCM. NCM #	✓			✓
Are any results over calibration range? If reported, are results E flagged?		✓		✓
Are J values the result of over dilution?		✓		✓
Client requirements reviewed and met?	✓			✓
Were data manually transcribed from instrument printouts or benchsheets into TALS verified 100% including dilution factors, significant figures and correct units? (If Applicable)	✓			✓
Do the prep and analysis dates in TALS reflect the actual dates?	✓			
Were peak assignments verified? (anions)	✓			✓
Were manual integrations performed correctly and properly documented? (anions)	✓			✓
C. Preparation/Matrix QC				
Method blank < 1/2 RL or all reported samples > 10x blank have NCM? - (COD, Phenol MB <RL)	✓			✓
Method blank < 1/2 RL or NCM provided? - (COD, Phenol MB <RL)	✓			✓
LCS/LCSD run for batch and within QC limits?	✓			✓
MS/MSD run at required frequency? Verify that MS/MSD failures are matrix issues and not analytical issues such as not spiking or not applying the appropriate dilution.	✓			✓
DUP run at required frequency?	✓			✓

Menu or Tab	Check	1 st	2 nd
Analyst Desktop	Create or open batch		
View Batch Info	Confirm all fields are populated	✓	✓
	Edit Analyst ID as is appropriate	✓	✓
Run log	Verify the correct samples and QC are run at the correct frequency (i.e., 10 samples per CCV)	✓	✓
Sample List	Confirm all Graphics have been uploaded (IC only)	✓	✓
	In edit mode, if prompted to process samples, select "Yes"	✓	✓
	Confirm samples are identified (Blue P Icon)	✓	✓
	Confirm correct analysis date and time are listed	✓	✓
	Confirm samples have the correct dilution factors. TOC – Check for manual dilutions not entered into instrument run log, Auto dilutions (Aut. Dil.) and Injections volume (Inj. Vol.)	✓	✓
	Confirm samples have the correct method chain assigned	✓	✓
	Confirm that solid samples have the % moisture listed	N/A	N/A
Worksheet	Populate all appropriate fields in the worksheet. Initial Amount, Final Amount, pH, etc.	✓	✓
Reagents	Confirm reagents are correct and properly associated with QC samples. Confirm that reagent amounts are correct. If reagents are new, verify that the correct COA has been attached to the source standard	✓	✓
Results	Check for special instructions (Login, Method and Sample comments) - red notebook icon	✓	✓
	Check for any QC failures	✓	✓
	Set status for samples based on QC and sample results info (i.e., set to primary analysis with passing QC or reject samples without passing QC or samples that are over-range).	✓	✓
	Address any results that are reported without passing QC with an NCM	✓	✓
QC Links	Confirm QC links are correct	✓	✓
Hist. Data Check	Check historical data. Print charts for outliers. Take corrective action as is appropriate	✓	✓
Sample List	Re-calculate data and set to appropriate review status (1 st or 2 nd level review)	✓	✓
	Scan and attach raw data & save batch	✓	✓

Analyst: [Signature] Date: 5/16/15 2nd Level Reviewer: [Signature] Date: 5/18/15

IC Instrument Information

WL: 35069 Inst ID: 8 Analysis Date: 05/15 Analyst: TP

AMEC →
↓
need dilution
log sheet

Rush	Job No.	Samples	Anions	QC Req	HT Exp
<input checked="" type="checkbox"/>	<u>69289</u>	<u>5</u>	F <u>Cl</u> NO2 Br NO3 PO4 <u>SO4</u>	MS/D	
<input checked="" type="checkbox"/>	<u>69318</u>	<u>1</u>	F <u>Cl</u> <u>NO2</u> Br NO3 PO4 SO4	MS/D	
<input type="checkbox"/>	<u>68869</u>	<u>1</u>	F <u>Cl</u> NO2 <u>Br</u> NO3 PO4 <u>SO4</u>	<u>MS/D</u> |	
<input type="checkbox"/>	<u>68917</u>	<u>1</u>	F <u>Cl</u> NO2 Br NO3 PO4 <u>SO4</u>	MS/D	
<input type="checkbox"/>	<u>68703</u>	<u>1</u>	F Cl NO2 Br NO3 PO4 <u>SO4</u>	MS/D	
<input type="checkbox"/>	<u>68923</u>	<u>1</u>	F <u>Cl</u> NO2 <u>Br</u> NO3 PO4 <u>SO4</u>	<u>MS/D</u> |	
<input type="checkbox"/>	<u>68926</u>	<u>1</u>	F <u>Cl</u> NO2 <u>Br</u> NO3 PO4 <u>SO4</u>	MS/D	
<input type="checkbox"/>			F Cl NO2 Br NO3 PO4 SO4	MS/D	
<input type="checkbox"/>	<u>67439</u>	<u>Az</u>	F <u>Cl</u> NO2 <u>Br</u> NO3 <u>PO4</u> <u>SO4</u>	MS/D	<u>LOQV & MDLV</u>
<input type="checkbox"/>			F Cl NO2 Br NO3 PO4 SO4	MS/D	
<input type="checkbox"/>			F Cl NO2 Br NO3 PO4 SO4	MS/D	
<input type="checkbox"/>			F Cl NO2 Br NO3 PO4 SO4	MS/D	
<input type="checkbox"/>			F Cl NO2 Br NO3 PO4 SO4	MS/D	
<input type="checkbox"/>			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
<u>69289</u>	<u>3,4,7,10</u>	F <u>Cl</u> NO2 Br NO3 PO4 <u>SO4</u>	<u>10x</u>	<u>high</u>
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

22
7

Sample ID	Prepared Dilution	mLs of Sample Used	mLs of DI water Used	Comments	
280-59565-1	5x	1.0	4.0	IC 11 09/03/14 ↓ ↓	
↓ -2	5x	1.0	4.0		
280.66714-2	50x	0.1	4.9	IC 8 03/25/15	
↓ -3	50x	0.1	4.9		
↓ -4	500x	2 dilutions: 10x 50x	0.5 to 4.5 H ₂ O 0.1 to 4.9		
↓ -6	50x	0.1	4.9		
↓ -8	100x	0.05	4.95		
↓ -9	100x	0.05	4.95		
↓ -3	200x	2 dilutions 10x 20x	0.5 to 4.5 H ₂ O 0.25 to 4.75	IC 8 03/27/15 ↓	
280-66963-3	5x	1.0	4.0		
↓ -3	50x	0.1	4.9	↓	
↓ -4	5x	1.0	4.0		
↓ -7	2x	2.5	2.5		
↓ -7	10x	0.5	4.5		
↓ -8	2x	2.5	2.5		
↓ -8	10x	0.5	4.5		
280-69289-3	10x	0.5	4.5		IC 8 05/15/15 ↓
↓ -4	10x	0.5	4.5		
↓ -7	10x	0.5	4.5		
↓ -10	10x	0.5	4.5		

TestAmerica Denver
Priority Form

Log-in Number: 69289
Client: AMEC Basis MAES

Project Manager: JJ

Time Zone:

Receiving	Initials: <u>JS</u>	Date/Time: <u>5/15/15 0940</u>
Dept. Rep. / Analyst	<u>NS</u>	<u>051515 1914</u>

EDT/EST	CDT/CST	<u>MDT/MST</u>	PDT/PST
Other:			

HT	Analysis	Min Volume needed (mL)	Method	Sample(s)	MS/MSD Required
Priority I	Chromium (VI) (24 h) [Circle Method]	100	3500-Cr B/D or 7196A		
	Hydrazine (Waters & Solids)	100	Denver		
	Biological Oxygen Demand	1000	5210 B		
	Carbonaceous BOD (cBOD)	1000	5210 B		
Priority II (48 h)	Cyanide Preservation	100	335.4 / 4500-CN		
	Color	100	2120 B		
	Nitrite by Spec (COC May Only list Nitrate)	100	353.2/4500-NO ₂ B		
	Orthophosphate by Spec.	50	365.1*		
	Nitrate by IC	50	300.0/9056	<u>1, 3, 4, 7, 10</u>	
	Nitrite by IC	50	300.0/9056		
	Orthophosphate by IC	50	300.0/9056*		
	Settleable Solids	1000	SM2540F		
Priority III	Turbidity	50	180.1		
	Dissolved Oxygen	100	4500-O G		
	Free Carbon Dioxide (CO ₂)	100	4500-CO ₂		
	Sulfite (SO ₃ ²⁻)	100	4500-SO ₃ B		
	pH (water)	100	4500-H (8, 9040/9045)	<u>3, 4, 7, 10</u>	
	pH (soil Hanford)	5 g	9045C		
Ferrous Iron	100	3500-FE D	<u>1, 3, 4, 7, 10</u>		

Potentially Dissolved Metals (wait 8-96 hours to filter):

Preserve:

Filter:

Split:

Composite: NO₃ Li SO₄

Crush:

3260 Encores Terra-ores
 Check if required: Coring device un-extruded which requires extrusion and freezing within 48 hours.
 Check if required: A plug of dirt in an empty vial -- place in the freezer within 48 hours for preservation

Sample	<u>1</u>	<u>3</u>	<u>4</u>	<u>7</u>	<u>9</u>	<u>10</u>													
Date	<u>5/4</u>																		
Time	<u>0900</u>	<u>0800</u>	<u>0845</u>	<u>1115</u>	<u>1240</u>	<u>1440</u>													

Sample																			
Date																			
Time																			

Tests	Samples	Rapidly Expiring	24 TAT	48 TAT	72 TAT	Other:

*Orthophosphate by methods 300.0 and 365.1 require field filtration within 15 minutes of collection.

TestAmerica Denver
Priority Form

Log-in Number: 69318

Project Manager: Donna

Client: Cookley

Time Zone:

Receiving	Initials: <u>MS</u>	Date/Time: <u>5/15/15 10:00</u>
Dept. Rep. / Analyst	<u>MS</u>	<u>051515 1914</u>

EDT/EST	CDT/CST	<u>MDT/MST</u>	PDT/PST
Other:			

HT	Analysis	Mtn Volume needed (mL)	Method	Sample(s)	MS/MSD Required
Priority I	Chromium (VI) (24 h) [Circle Method]	100	3500-Cr B/D or 7196A		
	Hydrazine (Waters & Solids)	100	Denver		
	Biological Oxygen Demand	1000	5210 B		
	Carbonaceous BOD (cBOD)	1000	5210 B		
Priority II (48 h)	Cyanide Preservation	100	335.4 / 4500-CN		
	Color	100	2120 B		
	Nitrite by Spec (COC May Only list Nitrate)	100	353.2/4500-NO ₂ B		
	Orthophosphate by Spec.	50	365.1*		
	Nitrate by IC	50	300.0/9056	|	
	Nitrite by IC	50	300.0/9056	|	
	Orthophosphate by IC	50	300.0/9056*		
	Settleable Solids	1000	SM2540F		
Priority III	Turbidity	50	180.1		
	Dissolved Oxygen	100	4500-O ₂ G		
	Free Carbon Dioxide (CO ₂)	100	4500-CO ₂		
	Sulfite (SO ₃ ²⁻)	100	4500-SO ₃ B		
	pH (water)	100	4500-H B/9040/9045		
	pH (soil Hanford)	5 g	9045C		
	Ferrous Iron	100	3500-FE D		

Potentially Dissolved Metals (wait 8-96 hours to filter):

Preserve:

Filter:

Split:

Composite: NO₂ NO₃ Cl

Crush:

3360 Encores	<input type="checkbox"/> Check if required: Coring device un-extruded which requires extrusion and freezing within 48 hours.
Tenacores	<input type="checkbox"/> Check if required: A plug of dirt in an empty vial -- place in the freezer within 48 hours for preservation

Sample	<u>1</u>																			
Date	<u>5/14</u>																			
Time	<u>14:00</u>																			

Sample																				
Date																				
Time																				

Tests	Samples	Rapidly Expiring	24 TAT	48 TAT	72 TAT	Other:

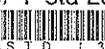
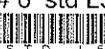
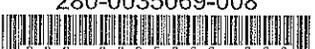
*Orthophosphate by methods 300.0 and 365.1 require field filtration within 15 minutes of collection.

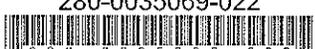
TestAmerica Laboratories
Worklist Report

Worklist Name: 051515cal Worklist Number: 35069
 Instrument Name: WC_IonChrom8 Chrom Method: Anions_IC8
 Injection Volume: 25.00 Units: ul
 Analysis Type: Semi VOA
 Batch Directory: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b
 Upload Directory: \\CORPTALSAPP06\280-DN-RawData\WetChem\IonChrom8\300.0_28D

Page 1584 of 1738

06/25/2015

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Dilution Factor
280-0035069-001 	# 1 RTC 	IC LCS_00261	RTC		1.000000	
280-0035069-002 	# 2 std L1 	IC Cal low_00085 IC CAL cl/so4_00047	IC	1	1.000000	
280-0035069-003 	# 3 std L2 	IC Cal low_00085 IC CAL cl/so4_00047	IC	2	1.000000	
280-0035069-004 	# 4 std L3 	IC Cal low_00085 IC CAL cl/so4_00047	IC	3	1.000000	
280-0035069-005 	# 5 std L4 	IC Cal low_00085 IC CAL cl/so4_00047	IC	4	1.000000	
280-0035069-006 	# 6 std L5 	IC Cal low_00085 IC CAL cl/so4_00047	IC	5	1.000000	
280-0035069-007 	# 7 std L6 	IC Cal low_00085 IC CAL cl/so4_00047	IC	6	1.000000	
280-0035069-008 	# 8 ICV 	IC CL ICV_00010 IC ICV 5_00076 IC SO4 ICV_00014	ICV		1.000000	
280-0035069-009 	# 9 ICB 		ICB		1.000000	
280-0035069-010 	#10 MRL 	IC Cal low_00085 IC CAL cl/so4_00047	MRL		1.000000	
280-0035069-011 	#11 LCS 	IC LCS_00261	LCS		1.000000	
280-0035069-012 	#12 LCSD 	IC LCS_00261	LCSD		1.000000	
280-0035069-013 	#13 MB 		MB		1.000000	
280-0035069-014 	#14 280-69289-C-1 		Client		1.000000	

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Dilution Factor
280-0035069-015 	#15 280-69289-C-3 		Client		1.000000	
280-0035069-016 	#16 280-69289-C-4 		Client		1.000000	
280-0035069-017 	#17 280-69289-A-7 		Client		1.000000	
280-0035069-018 	#18 280-69289-C-10 		Client		1.000000	
280-0035069-019 	#19 280-69318-C-1 		Client		2.000000	
280-0035069-020 	#20 280-69318-C-1 		Client		50.00	
280-0035069-021 	#21 280-68869-F-1 		Client		1.000000	
280-0035069-022 	#22 280-68869-F-1 DU 		DU		1.000000	
280-0035069-023 	#23 280-68869-F-1 MS 	ICMS/MSD WEEK_00320	MS		1.000000	
280-0035069-024 	#24 ccv 	IC LCS_00261	CCV		1.000000	
280-0035069-025 	#25 ccb 		CCB		1.000000	
280-0035069-026 	#26 280-68869-F-1 MSD 	ICMS/MSD WEEK_00320	MSD		1.000000	
280-0035069-027 	#27 280-68917-A-1 		Client		5.000000	
280-0035069-028 	#28 280-68917-A-1 		Client		50.00	
280-0035069-029 	#29 280-68703-A-1 		Client		1.000000	
280-0035069-030 	#30 280-68923-F-1 		Client		1.000000	
280-0035069-031 	#31 280-68923-F-1 DU 		DU		1.000000	
280-0035069-032 	#32 280-68923-F-1 MS 	ICMS/MSD WEEK_00320	MS		1.000000	

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Dilution Factor
280-0035069-033 	#33 280-68923-F-1 MSD 	ICMS/MSD WEEK_00320	MSD		1.000000	
280-0035069-034 	#34 280-68926-B-1 		Client		1.000000	
280-0035069-035 	#35 ccv 	IC LCS_00261	CCV		1.000000	
280-0035069-036 	#36 ccb 		CCB		1.000000	
280-0035069-037 	#37 280-67439-A-5 LOQV 	IC Cal low_00085 IC CAL cl/so4_00047	LOQV		1.000000	
280-0035069-038 	#38 280-67439-A-5 LOQV 	IC Cal low_00085 IC CAL cl/so4_00047	LOQV		1.000000	
280-0035069-039 	#39 280-67439-A-5 MDLV 	IC Cal low_00085 IC CAL cl/so4_00047	MDLV		1.000000	
280-0035069-040 	#40 280-67439-A-5 MDLV 	IC Cal low_00085 IC CAL cl/so4_00047	MDLV		1.000000	
280-0035069-041 	#41 280-67439-A-5 MDLV 	IC Cal low_00085 IC CAL cl/so4_00047	MDLV		1.000000	
280-0035069-042 	#42 280-67439-A-5 MDLV 	IC Cal low_00085 IC CAL cl/so4_00047	MDLV		1.000000	
280-0035069-043 	#43 ccv 	IC LCS_00261	CCV		1.000000	
280-0035069-044 	#44 ccb 		CCB		1.000000	
280-0035069-045 	#45 280-69289-C-3 		Client		10.00	
280-0035069-046 	#46 280-69289-C-4 		Client		10.00	
280-0035069-047 	#47 280-69289-A-7 		Client		10.00	
280-0035069-048 	#48 280-69289-C-10 		Client		10.00	
280-0035069-049 	#49 ccv 	IC LCS_00261	CCV		1.000000	
280-0035069-050 	#50 ccb 		CCB		1.000000	

TestAmerica Denver
Area/Height Percent Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\02.0000.d
 Lims ID: std L1
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 15-May-2015 11:49:00 ALS Bottle#: 0 Worklist Smp#: 2
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035069-002 Temporary sequence for manual data acquisition
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 16-May-2015 08:19:02 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Process Host: XAWRK024

Detector: 0005
 Number of peaks found: 7

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.059	1.922	2.627	5516525	10.38	4.37		1 Fluoride
3.415	3.189	3.735	15903839	29.93	5.48		2 Chloride
3.972	3.742	4.665	7803578	14.68	6.32		3 Nitrite as N
6.445	6.232	6.659	1015628	1.91	8.74		4 Bromide
7.135	6.772	7.594	7834666	14.74	10.73		5 Nitrate as N
11.519	11.382	11.645	10388789	19.55	4.54		6 Sulfate
12.772	12.679	12.919	4678733	8.80	5.33		7 Orthophosphate as P
			53141758			Totals	

Total Unknown Area% = 0.00

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\02.0000.d
 Lims ID: std L1
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 15-May-2015 11:49:00 ALS Bottle#: 0 Worklist Smp#: 2
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035069-002 Temporary sequence for manual data acquisition
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 16-May-2015 08:19:02 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK024

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.059	2.055	0.004	5516525	0.2000	0.1807	
2 Chloride	3.415	3.385	0.030	15903839	1.00	1.02	
3 Nitrite as N	3.972	3.949	0.023	7803578	0.2000	0.1667	
4 Bromide	6.445	6.409	0.036	1015628	0.2000	0.2100	
5 Nitrate as N	7.135	6.949	0.186	7834666	0.2000	0.2004	
6 Sulfate	11.519	11.305	0.214	10388789	1.00	0.8596	
7 Orthophosphate as P	12.772	12.725	0.047	4678733	0.2000	0.1339	

Reagents:

IC Cal low_00085 Amount Added: 0.02 Units: mL
 IC CAL cl/so4_00047 Amount Added: 0.02 Units: mL

TestAmerica Denver

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\02.0000.d

Injection Date: 15-May-2015 11:49:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: std L1

Worklist Smp#: 2

Client ID:

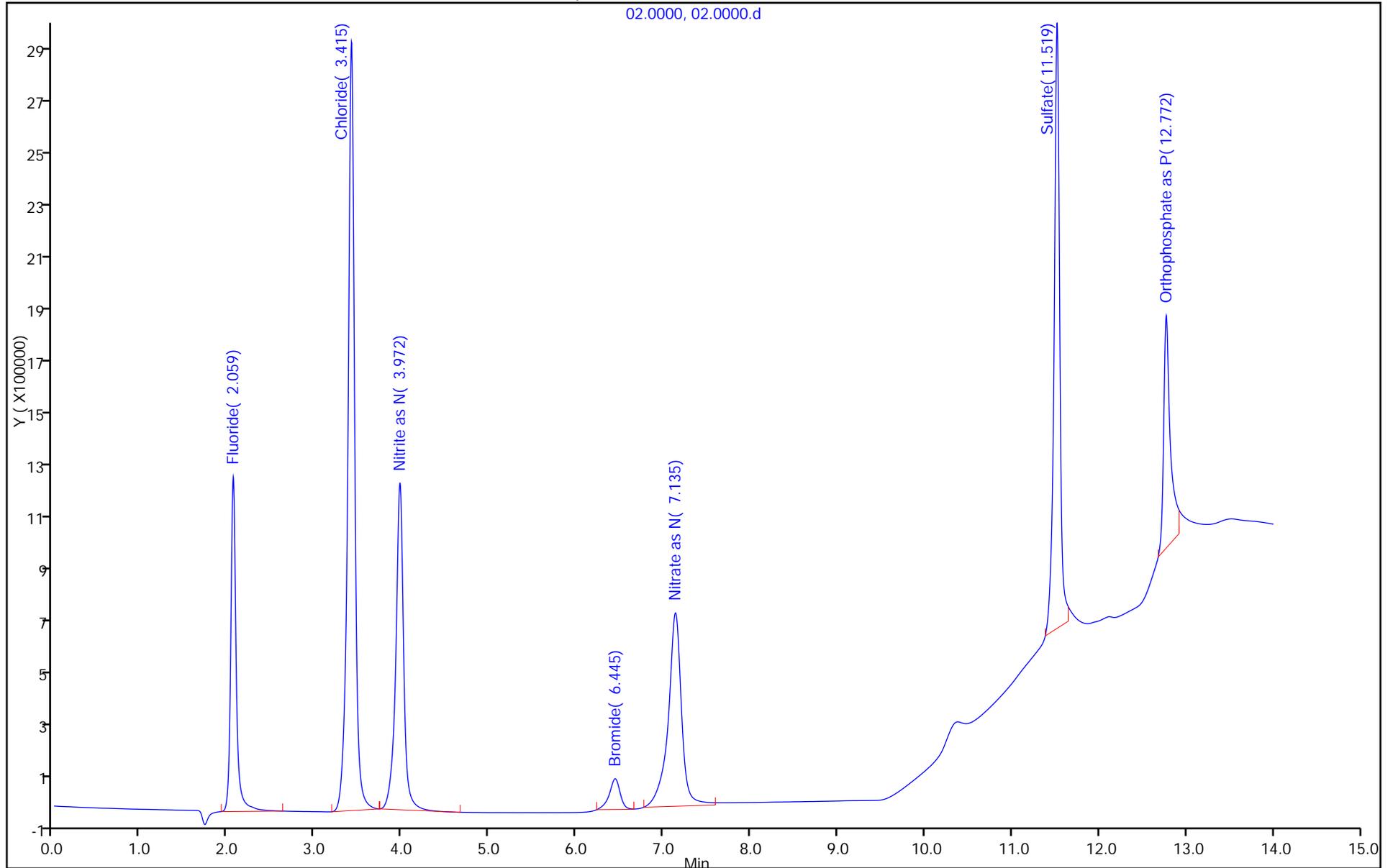
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\03.0000.d
 Lims ID: std L2
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 15-May-2015 12:06:00 ALS Bottle#: 0 Worklist Smp#: 3
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035069-003 Temporary sequence for manual data acquisition
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 16-May-2015 08:19:03 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Process Host: XAWRK024

Detector: 0005
 Number of peaks found: 7

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.067	1.842	3.108	14099264	9.58	4.49		1 Fluoride
3.425	3.167	3.733	41067660	27.90	5.54		2 Chloride
3.983	3.733	4.825	20062651	13.63	6.57		3 Nitrite as N
6.450	6.042	6.675	3108069	2.11	9.52		4 Bromide
7.125	6.675	7.867	21191384	14.40	10.86		5 Nitrate as N
11.525	10.958	11.850	34067940	23.14	5.38		6 Sulfate
12.775	12.467	13.100	13604658	9.24	6.77		7 Orthophosphate as P
			147201626			Totals	

Total Unknown Area% = 0.00

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\03.0000.d
 Lims ID: std L2
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 15-May-2015 12:06:00 ALS Bottle#: 0 Worklist Smp#: 3
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035069-003 Temporary sequence for manual data acquisition
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 16-May-2015 08:19:03 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK024

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.067	2.055	0.012	14099264	0.5000	0.5101	
2 Chloride	3.425	3.385	0.040	41067660	2.50	2.47	
3 Nitrite as N	3.983	3.949	0.034	20062651	0.5000	0.5211	
4 Bromide	6.450	6.409	0.041	3108069	0.5000	0.4960	
5 Nitrate as N	7.125	6.949	0.176	21191384	0.5000	0.5006	
6 Sulfate	11.525	11.305	0.220	34067940	2.50	2.75	
7 Orthophosphate as P	12.775	12.725	0.050	13604658	0.5000	0.6167	

Reagents:

IC Cal low_00085 Amount Added: 0.05 Units: mL
 IC CAL cl/so4_00047 Amount Added: 0.05 Units: mL

TestAmerica Denver

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\03.0000.d

Injection Date: 15-May-2015 12:06:00 Instrument ID: WC_IonChrom8

Lims ID: std L2

Operator ID:

Client ID:

Worklist Smp#: 3

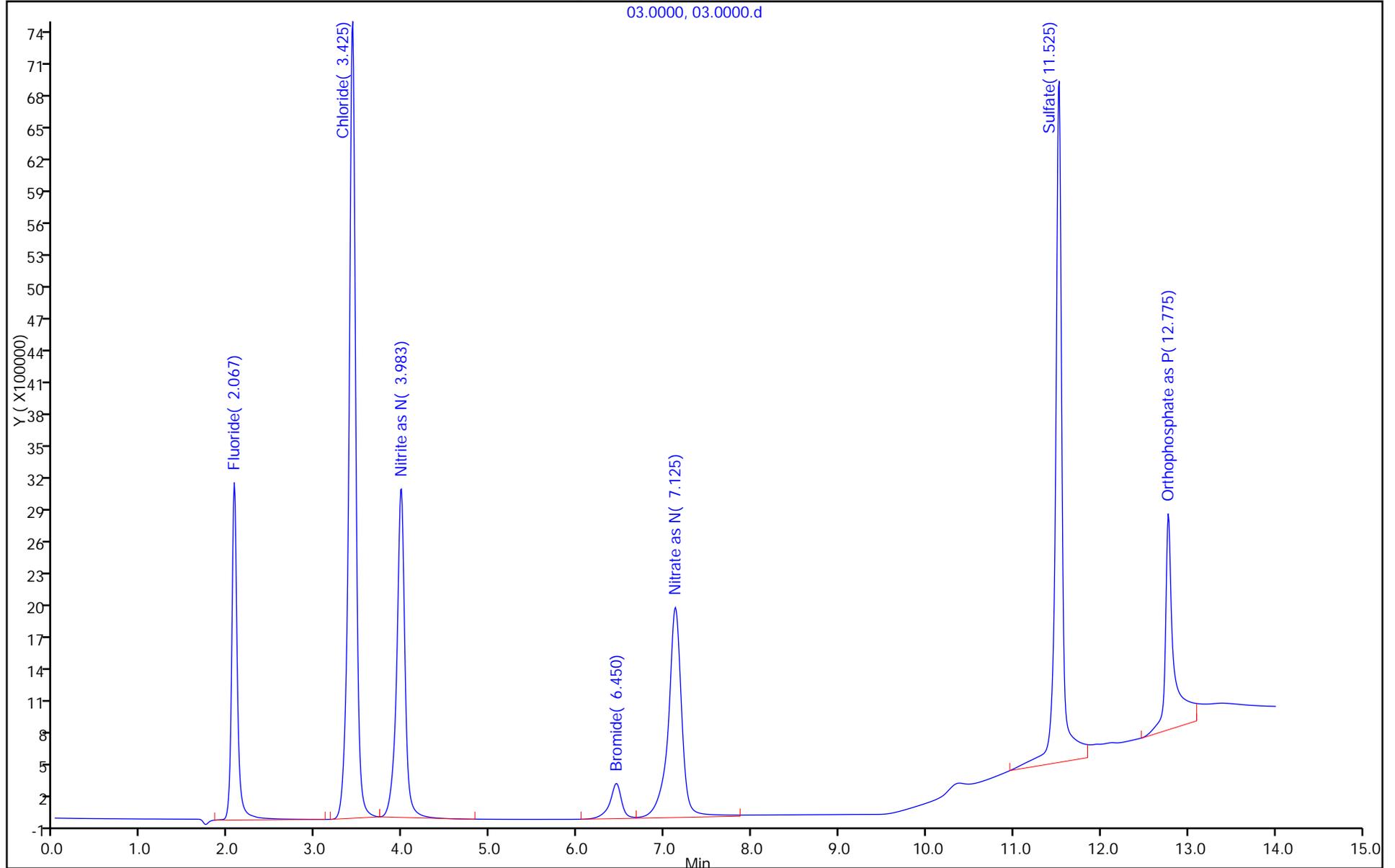
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\04.0000.d
 Lims ID: std L3
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 15-May-2015 12:23:00 ALS Bottle#: 0 Worklist Smp#: 4
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035069-004 Temporary sequence for manual data acquisition
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 16-May-2015 08:19:03 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Process Host: XAWRK024

Detector: 0005
 Number of peaks found: 7

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.075	1.842	3.125	28366105	9.80	4.61		1 Fluoride
3.425	3.167	3.733	83624189	28.89	5.57		2 Chloride
3.975	3.733	4.892	40176586	13.88	6.84		3 Nitrite as N
6.442	6.017	6.667	6502013	2.25	9.25		4 Bromide
7.092	6.667	8.092	43221199	14.93	10.94		5 Nitrate as N
11.508	10.958	11.858	64794304	22.38	5.14		6 Sulfate
12.767	12.475	13.142	22791117	7.87	5.67		7 Orthophosphate as P
			289475513			Totals	

Total Unknown Area% = 0.00

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\04.0000.d
 Lims ID: std L3
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 15-May-2015 12:23:00 ALS Bottle#: 0 Worklist Smp#: 4
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035069-004 Temporary sequence for manual data acquisition
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 16-May-2015 08:19:03 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK024

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.075	2.055	0.020	28366105	1.00	1.06	
2 Chloride	3.425	3.385	0.040	83624189	5.00	4.93	
3 Nitrite as N	3.975	3.949	0.026	40176586	1.00	1.10	
4 Bromide	6.442	6.409	0.033	6502013	1.00	0.9598	
5 Nitrate as N	7.092	6.949	0.143	43221199	1.00	1.00	
6 Sulfate	11.508	11.305	0.203	64794304	5.00	5.19	
7 Orthophosphate as P	12.767	12.725	0.042	22791117	1.00	1.11	

Reagents:

IC Cal low_00085 Amount Added: 0.10 Units: mL
 IC CAL cl/so4_00047 Amount Added: 0.10 Units: mL

TestAmerica Denver

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\04.0000.d

Injection Date: 15-May-2015 12:23:00 Instrument ID: WC_IonChrom8

Lims ID: std L3

Operator ID:

Worklist Smp#: 4

Client ID:

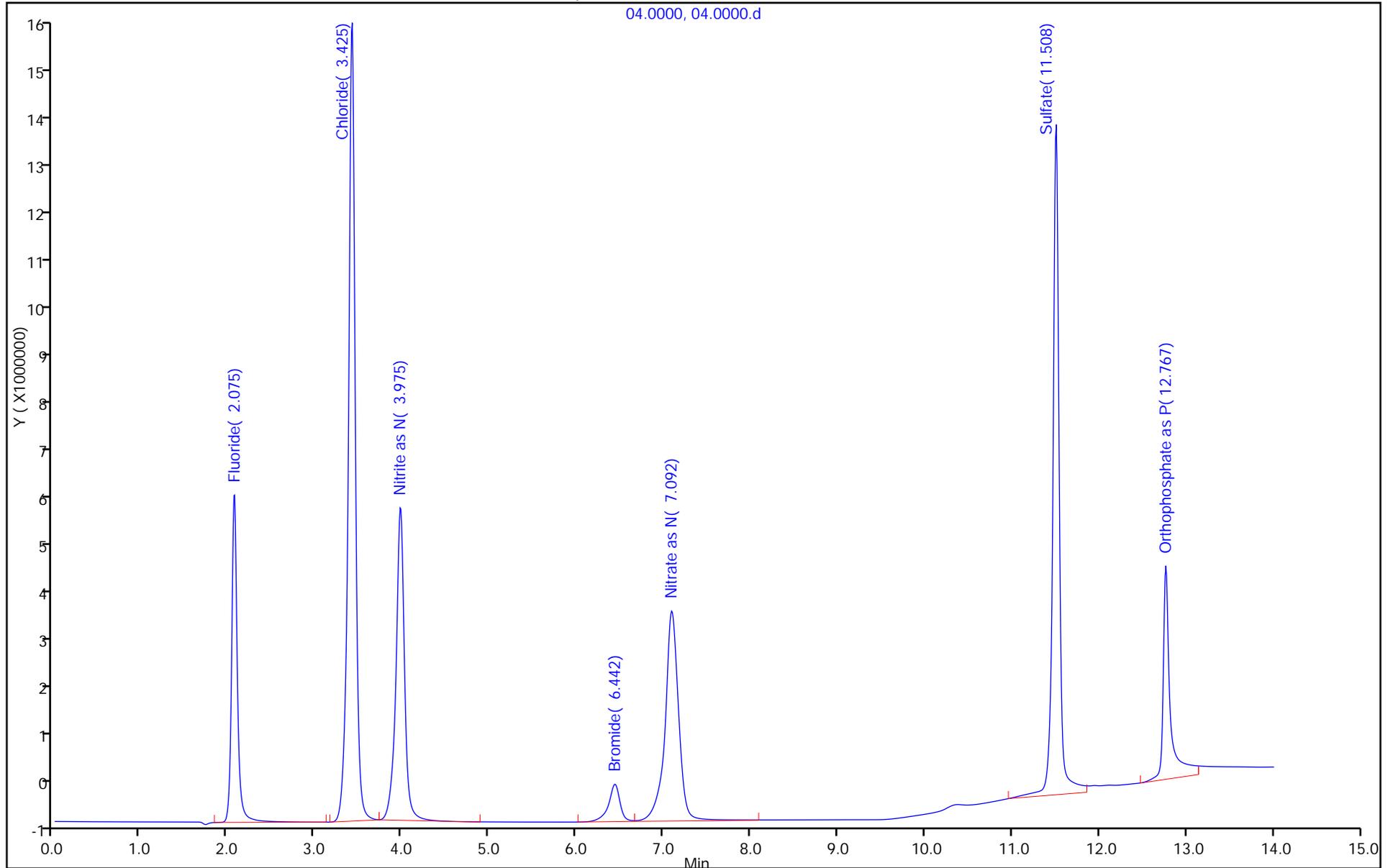
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\05.0000.d
 Lims ID: std L4
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 15-May-2015 12:39:00 ALS Bottle#: 0 Worklist Smp#: 5
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035069-005 Temporary sequence for manual data acquisition
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 16-May-2015 08:19:04 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Process Host: XAWRK024

Detector: 0005
 Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.075	1.842	3.117	109149818	4.67	5.03		1 Fluoride
3.400	3.117	3.733	1040228832	44.55	5.82		2 Chloride
3.967	3.733	4.483	147475506	6.32	7.69		3 Nitrite as N
6.400	5.975	6.617	28421174	1.22	9.00		4 Bromide
6.958	6.617	8.500	176878434	7.58	12.93		5 Nitrate as N
11.383	10.983	11.892	756264194	32.39	8.49		6 Sulfate
11.942	11.892	12.008	91157	0.00	3.40		
12.742	12.458	13.242	76386303	3.27	5.11		7 Orthophosphate as P
			2334895418			Totals	

Total Unknown Area% = 0.00

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
 IC, ICal Standard Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\05.0000.d
 Lims ID: std L4
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 15-May-2015 12:39:00 ALS Bottle#: 0 Worklist Smp#: 5
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035069-005 Temporary sequence for manual data acquisition
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 16-May-2015 08:19:04 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK024
 Start Cal Date: 15-May-2015 11:49:00
 End Cal Date: 15-May-2015 13:13:00

Compound	Standard RRF/Amt	DLT RT	Ccal Amt	Ccal RF	%D	Max. %D	%Rec
1 Fluoride	4.00	0.0	4.16	27287455	4.0	0	104
2 Chloride	60.0	0.0	60.2	17337147	0.4	0	100
3 Nitrite as N	4.00	0.0	4.20	36868877	5.1	0	105
4 Bromide	4.00	0.0	3.96	7105294	-1.1	0	99
5 Nitrate as N	4.00	0.0	4.00	44219609	-0.01	0	100
6 Sulfate	60.0	0.0	60.3	12604403	0.5	0	100
7 Orthophosphate as P	4.00	0.0	4.01	19096576	0.3	0	100

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\05.0000.d
 Lims ID: std L4
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 15-May-2015 12:39:00 ALS Bottle#: 0 Worklist Smp#: 5
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035069-005 Temporary sequence for manual data acquisition
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 16-May-2015 08:19:04 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK024

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.075	2.075	0.000	109149818	4.00	4.16	
2 Chloride	3.400	3.400	0.000	1040228832	60.0	60.2	
3 Nitrite as N	3.967	3.967	0.000	147475506	4.00	4.20	
4 Bromide	6.400	6.400	0.000	28421174	4.00	3.96	
5 Nitrate as N	6.958	6.958	0.000	176878434	4.00	4.00	
6 Sulfate	11.383	11.383	0.000	756264194	60.0	60.3	
7 Orthophosphate as P	12.742	12.742	0.000	76386303	4.00	4.01	

Reagents:

IC Cal low_00085 Amount Added: 0.40 Units: mL
 IC CAL cl/so4_00047 Amount Added: 1.20 Units: mL

TestAmerica Denver

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\05.0000.d

Injection Date: 15-May-2015 12:39:00 Instrument ID: WC_IonChrom8

Lims ID: std L4

Operator ID:

Client ID:

Worklist Smp#: 5

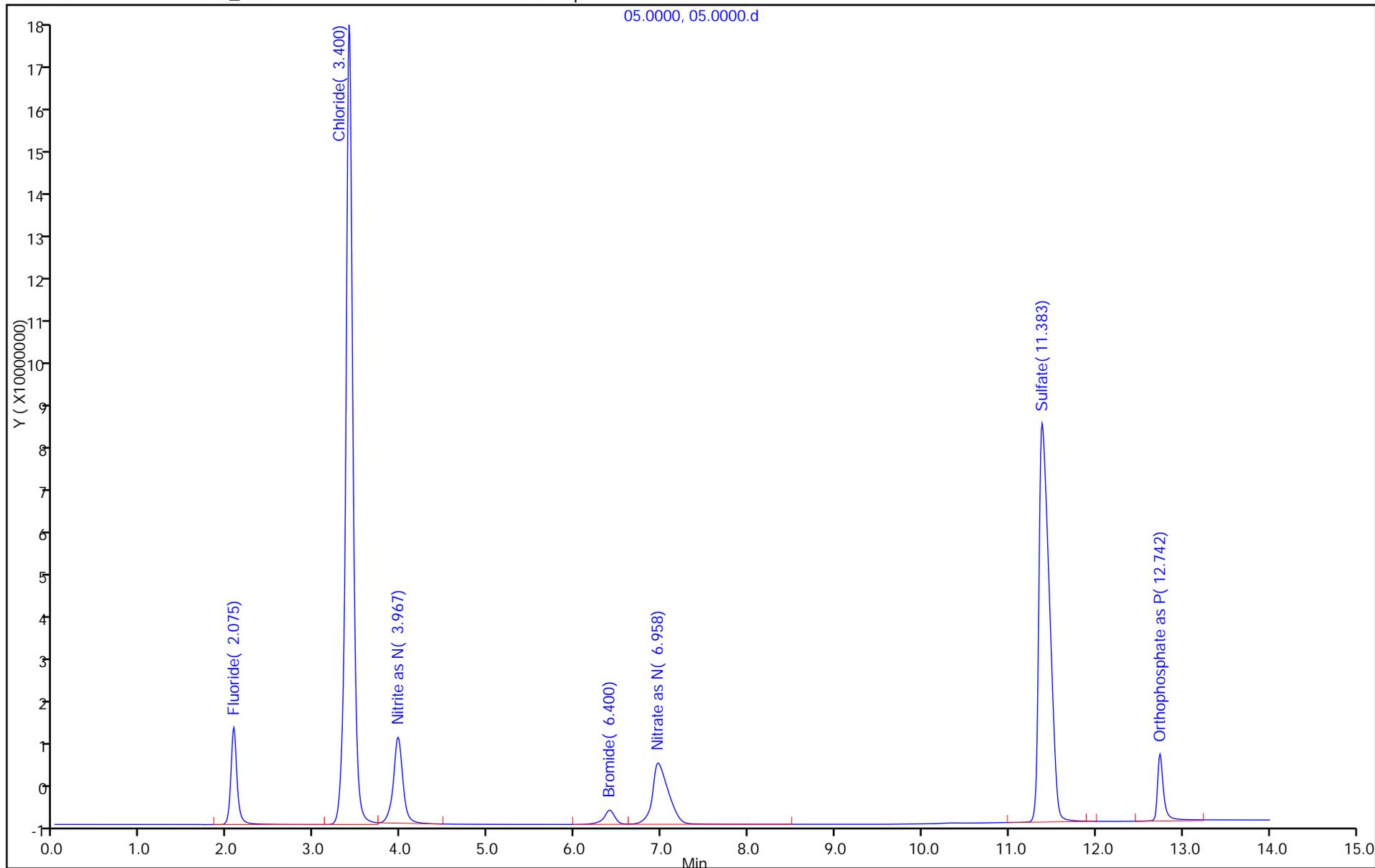
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\06.0000.d
 Lims ID: std L5
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 15-May-2015 12:56:00 ALS Bottle#: 0 Worklist Smp#: 6
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035069-006 Temporary sequence for manual data acquisition
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 16-May-2015 08:19:05 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Process Host: XAWRK024

Detector: 0005
 Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.075	1.842	3.108	208914369	4.49	5.55		1 Fluoride
3.392	3.108	3.725	2084730680	44.84	5.87		2 Chloride
3.950	3.725	4.508	279073047	6.00	8.51		3 Nitrite as N
6.350	5.950	6.558	58374887	1.26	9.01		4 Bromide
6.842	6.558	8.192	355821573	7.65	15.33		5 Nitrate as N
11.300	10.992	11.883	1513081631	32.55	11.32		6 Sulfate
11.933	11.883	12.008	201186	0.00	3.67		
12.717	12.467	13.250	148624363	3.20	5.40		7 Orthophosphate as P
			4648821736			Totals	

Total Unknown Area% = 0.00

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\06.0000.d
 Lims ID: std L5
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 15-May-2015 12:56:00 ALS Bottle#: 0 Worklist Smp#: 6
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035069-006 Temporary sequence for manual data acquisition
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 16-May-2015 08:19:05 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK024

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.075	2.075	0.000	208914369	8.00	7.99	
2 Chloride	3.392	3.400	-0.008	2084730680	120.0	120.6	
3 Nitrite as N	3.950	3.967	-0.017	279073047	8.00	8.01	
4 Bromide	6.350	6.400	-0.050	58374887	8.00	8.05	
5 Nitrate as N	6.842	6.958	-0.116	355821573	8.00	8.02	
6 Sulfate	11.300	11.383	-0.083	1513081631	120.0	120.6	
7 Orthophosphate as P	12.717	12.742	-0.025	148624363	8.00	7.92	

Reagents:

IC Cal low_00085 Amount Added: 0.80 Units: mL
 IC CAL cl/so4_00047 Amount Added: 2.40 Units: mL

TestAmerica Denver

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\06.0000.d

Injection Date: 15-May-2015 12:56:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: std L5

Worklist Smp#: 6

Client ID:

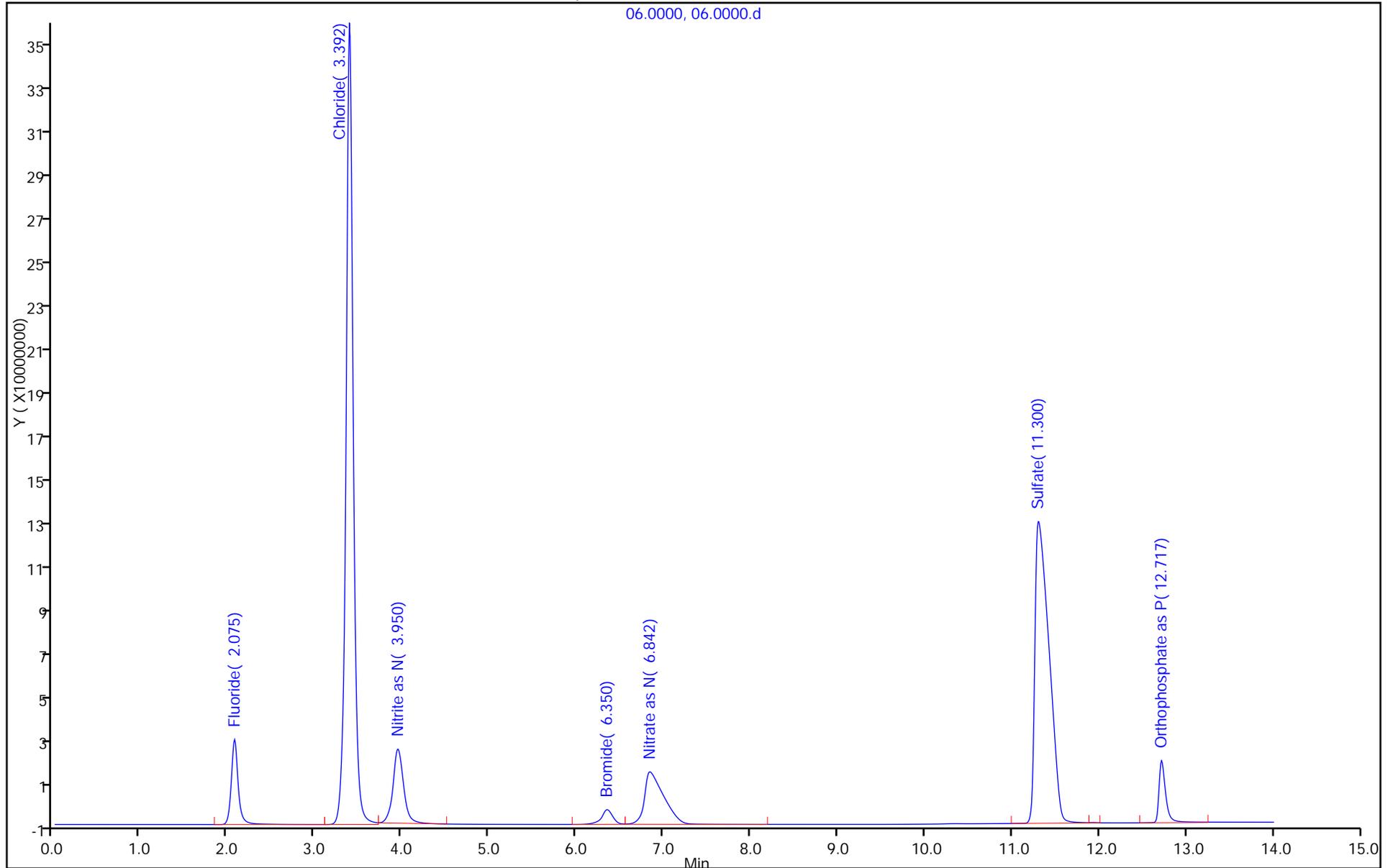
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Lims ID: std L6
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 15-May-2015 13:13:00 ALS Bottle#: 0 Worklist Smp#: 7
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035069-007 Temporary sequence for manual data acquisition
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 16-May-2015 08:19:05 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Process Host: XAWRK024

Detector: 0005
 Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.067	1.883	3.092	256330695	3.54	6.01		1 Fluoride
3.392	3.100	3.725	3444134963	47.60	6.22		2 Chloride
3.942	3.725	4.442	337561564	4.67	8.76		3 Nitrite as N
6.317	5.933	6.525	72871757	1.01	9.04		4 Bromide
6.783	6.525	8.075	443100116	6.12	16.28		5 Nitrate as N
11.225	10.983	11.875	2496451164	34.50	14.37		6 Sulfate
11.925	11.875	12.008	245695	0.00	4.01		
12.717	12.475	13.275	185231054	2.56	5.66		7 Orthophosphate as P
			7235927008			Totals	

Total Unknown Area% = 0.00

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Lims ID: std L6
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 15-May-2015 13:13:00 ALS Bottle#: 0 Worklist Smp#: 7
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035069-007 Temporary sequence for manual data acquisition
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 16-May-2015 08:19:05 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK024

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.067	2.075	-0.008	256330695	10.0	9.81	
2 Chloride	3.392	3.400	-0.008	3444134963	200.0	199.2	
3 Nitrite as N	3.942	3.967	-0.025	337561564	10.0	9.70	
4 Bromide	6.317	6.400	-0.083	72871757	10.0	10.0	
5 Nitrate as N	6.783	6.958	-0.175	443100116	10.0	9.98	
6 Sulfate	11.225	11.383	-0.158	2496451164	200.0	198.9	
7 Orthophosphate as P	12.717	12.742	-0.025	185231054	10.0	9.90	

Reagents:

IC Cal low_00085 Amount Added: 1.00 Units: mL
 IC CAL cl/so4_00047 Amount Added: 4.00 Units: mL

TestAmerica Denver

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d

Injection Date: 15-May-2015 13:13:00 Instrument ID: WC_IonChrom8

Lims ID: std L6

Operator ID:

Worklist Smp#: 7

Client ID:

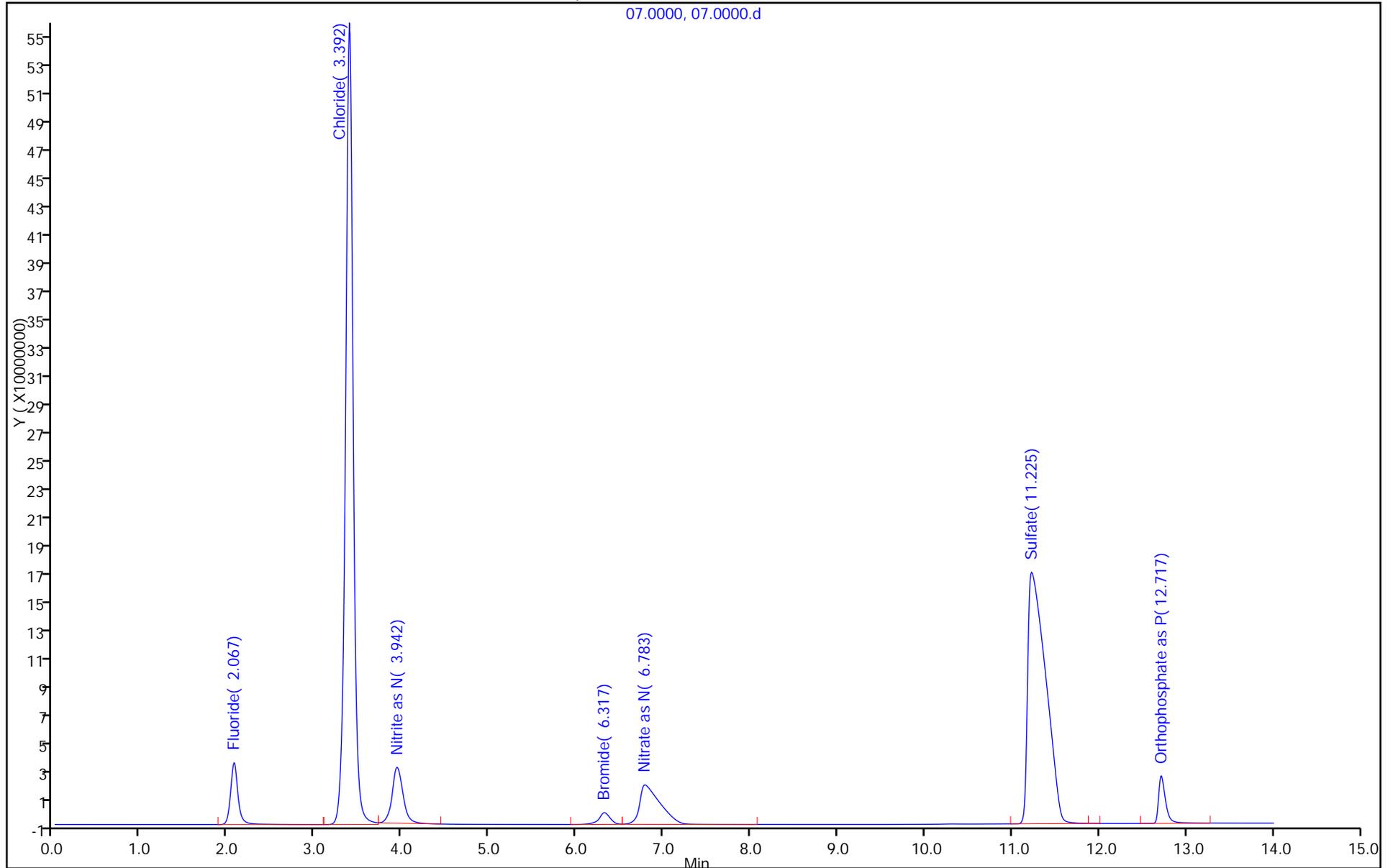
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\08.0000.d
 Lims ID: ICV
 Client ID:
 Sample Type: ICV
 Inject. Date: 05-Jun-2015 09:57:00 ALS Bottle#: 0 Worklist Smp#: 1
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-001 Temporary sequence for manual data acquisition
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist:

Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 08-Jun-2015 14:27:19 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Process Host: XAWRK022

First Level Reviewer: bensona Date: 05-Jun-2015 11:26:25

Detector: 0005

Number of peaks found: 7

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.033	1.842	3.025	103288281	3.49	5.46		1 Fluoride
3.325	3.025	3.658	1399452566	47.23	6.44		2 Chloride
3.875	3.658	4.333	143700491	4.85	8.01		3 Nitrite as N
6.267	5.858	6.475	28428157	0.96	9.86		4 Bromide
6.808	6.475	7.783	178320429	6.02	13.88		5 Nitrate as N
11.225	10.975	11.958	1029293087	34.74	10.17		6 Sulfate
12.683	12.475	13.392	80306543	2.71	5.74		7 Orthophosphate as P
			2962789554			Totals	

Total Unknown Area% = 0.00

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

Data Review Checklist – Calibration Methods

Method(s): 300/9056/9056A	Instrument: ICS	Run Date: 06/05/15	Analyst Initials: TP/AB	SOP #: WC-0020			
Prep Batch(s): N/A		Analytical Batch: 280541 / 280542					
A. Calibration/Instrument Run QC				Yes	No	N/A	2nd
Minimum of five standards in ICAL or as specified in SOP?				✓			
Correlation coefficient ≥ 0.995 ?				✓			
Second-source ICV analyzed, and recovery within acceptance limits?				✓			
ICB analyzed immediately after the ICV & results < the RL				✓			/
CCV analyzed after every ten samples & recovery within acceptance limits?				✓			/
CCB analyzed after every CCV & results < RL?				✓			/
Absolute value of the x intercept is $< \pm \frac{1}{2}$ the RL?				✓			/
Elution order verified? (anions)				✓			/
Were manual integrations performed correctly and properly documented? (anions)				✓			/
B. Sample Results							
All samples greater than highest calibration standard diluted and reanalyzed?				✓			/
Do associated RLs/MDLs reflect dilutions or limited sample volume?				✓			/
All reported results bracketed by in control CCV results?				✓			/
Sample analyses done within holding time? If no, create HTV NCM. NCM #				✓			/
Are any results over calibration range? If reported, are results E flagged?					✓		/
Are J values the result of over dilution?					✓		/
Client requirements reviewed and met?				✓			/
Were data manually transcribed from instrument printouts or benchsheets into TALS verified 100% including dilution factors, significant figures and correct units? (If Applicable)				✓			/
Do the prep and analysis dates in TALS reflect the actual dates?				✓			
Were peak assignments verified? (anions)				✓			/
Were manual integrations performed correctly and properly documented? (anions)				✓			/
C. Preparation/Matrix QC							
Method blank $< \frac{1}{2}$ RL or all reported samples $> 10x$ blank have NCM? - (COD, Phenol MB <RL)				✓			/
Method blank $< \frac{1}{2}$ RL or NCM provided? - (COD, Phenol MB <RL)				✓			/
LCS/LCSD run for batch and within QC limits?				✓			/
MS/MSD run at required frequency? Verify that MS/MSD failures are matrix issues and not analytical issues such as not spiking or not applying the appropriate dilution.				✓			/
DUP run at required frequency?				✓			/
Menu or Tab	Check			1 st	2 nd		
Analyst Desktop	Create or open batch						
View Batch Info	Confirm all fields are populated	✓			/		
	Edit Analyst ID as is appropriate	✓			/		
Run log	Verify the correct samples and QC are run at the correct frequency (i.e., 10 samples per CCV)	✓			/		
Sample List	Confirm all Graphics have been uploaded (IC only)	✓			/		
	In edit mode, if prompted to process samples, select "Yes"	✓			/		
	Confirm samples are identified (Blue P Icon)	✓			/		
	Confirm correct analysis date and time are listed	✓			/		
	Confirm samples have the correct dilution factors. TOC – Check for manual dilutions not entered into instrument run log, Auto dilutions (Aut. Dil.) and Injections volume (Inj. Vol.)	✓			/		
	Confirm samples have the correct method chain assigned	✓			/		
	Confirm that solid samples have the % moisture listed			N/A	N/A		
Worksheet	Populate all appropriate fields in the worksheet. Initial Amount, Final Amount, pH, etc.	✓			/		
Reagents	Confirm reagents are correct and properly associated with QC samples. Confirm that reagent amounts are correct. If reagents are new, verify that the correct COA has been attached to the source standard	✓			/		
Results	Check for special instructions (Login, Method and Sample comments) - red notebook icon	✓			/		
	Check for any QC failures	✓			/		
	Set status for samples based on QC and sample results info (i.e., set to primary analysis with passing QC or reject samples without passing QC or samples that are over-range).	✓			/		
	Address any results that are reported without passing QC with an NCM	✓			/		
QC Links	Confirm QC links are correct	✓			/		
Hist. Data Check	Check historical data. Print charts for outliers. Take corrective action as is appropriate	✓			/		
Sample List	Re-calculate data and set to appropriate review status (1 st or 2 nd level review)	✓			/		
	Scan and attach raw data & save batch	✓			/		
Analyst: TP	Date: 06/08/15	2nd Level Reviewer: Phuyr Tripan	Date: 06/09/2015				

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IC Instrument Information

280541/42

WL: 35736 Inst ID: 8 Analysis Date: 6/5/15 Analyst: AM
 # 280621

Rush	Job No.	Samples	Anions	QC Req	HT Exp
9056A	✓ <input type="checkbox"/> 70279 ✓	1	F <u>Cl</u> <u>NO2</u> Br <u>NO3</u> PO4 <u>SO4</u>	<u>MS/D</u> 6	6-6
300	✓ <input type="checkbox"/> 70286	8	F <u>Cl</u> <u>NO2</u> Br <u>NO3</u> PO4 <u>SO4</u>	MS/D	6/6
300	✓ <input type="checkbox"/> 70078	6	F <u>Cl</u> NO2 Br NO3 PO4 <u>SO4</u>	<u>MS/D</u> -4	
300	✓ <input type="checkbox"/> 70102	2	F <u>Cl</u> NO2 Br NO3 PO4 SO4	MS/D	
	<input type="checkbox"/> <u>RSN</u> <u>015/15</u>		F Cl NO2 Br NO3 PO4 SO4	MS/D	
	<input type="checkbox"/>		F Cl NO2 Br NO3 PO4 SO4	MS/D	
9058	<input type="checkbox"/> 67440	Soil	<u>F Cl NO2 Br NO3 PO4 SO4</u>	<u>MS/D</u>	<u>LOQV & MDLV</u>
	<input type="checkbox"/>		F Cl NO2 Br NO3 PO4 SO4	MS/D	
	<input type="checkbox"/>		F Cl NO2 Br NO3 PO4 SO4	MS/D	
	<input type="checkbox"/>		F Cl NO2 Br NO3 PO4 SO4	MS/D	
	<input type="checkbox"/>		F Cl NO2 Br NO3 PO4 SO4	MS/D	
	<input type="checkbox"/>		F Cl NO2 Br NO3 PO4 SO4	MS/D	
	<input type="checkbox"/>		F Cl NO2 Br NO3 PO4 SO4	MS/D	
	<input type="checkbox"/>		F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
70286	1, 2, 3, 4, 8	F Cl NO2 Br NO3 PO4 <u>SO4</u>	50x	High
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

33
29

Phonix
06/02/2015

Data Review Checklist – Calibration Methods

Method(s): 300/9056/9056A		Instrument: ICS	Run Date: 06/05/15	Analyst Initials: TP/AB	SOP #: WC-0020			
Prep Batch(s): N/A			Analytical Batch: 280541 | 280542					
A. Calibration/Instrument Run QC					Yes	No	N/A	2nd
Minimum of five standards in ICAL or as specified in SOP?					✓			
Correlation coefficient ≥ 0.995 ?					✓			
Second-source ICV analyzed, and recovery within acceptance limits?					✓			
ICB analyzed immediately after the ICV & results < the RL					✓			
CCV analyzed after every ten samples & recovery within acceptance limits?					✓			
CCB analyzed after every CCV & results < RL?					✓			
Absolute value of the x intercept is < ± ½ the RL?					✓			
Elution order verified? (anions)					✓			
Were manual integrations performed correctly and properly documented? (anions)					✓			
B. Sample Results								
All samples greater than highest calibration standard diluted and reanalyzed?					✓			
Do associated RLs/MDLs reflect dilutions or limited sample volume?					✓			
All reported results bracketed by in control CCV results?					✓			
Sample analyses done within holding time? If no, create HTV NCM. NCM #					✓			
Are any results over calibration range? If reported, are results E flagged?						✓		
Are J values the result of over dilution?						✓		
Client requirements reviewed and met?					✓			
Were data manually transcribed from instrument printouts or benchsheets into TALS verified 100% including dilution factors, significant figures and correct units? (If Applicable)					✓			
Do the prep and analysis dates in TALS reflect the actual dates?					✓			
Were peak assignments verified? (anions)					✓			
Were manual integrations performed correctly and properly documented? (anions)					✓			
C. Preparation/Matrix QC								
Method blank < ½ RL or all reported samples > 10x blank have NCM? - (COD, Phenol MB <RL)					✓			
Method blank < ½ RL or NCM provided? - (COD, Phenol MB <RL)					✓			
LCS/LCSD run for batch and within QC limits?					✓			
MS/MSD run at required frequency? Verify that MS/MSD failures are matrix issues and not analytical issues such as not spiking or not applying the appropriate dilution.					✓			
DUP run at required frequency?					✓			
Menu or Tab	Check				1 st	2 nd		
Analyst Desktop	Create or open batch							
View Batch Info	Confirm all fields are populated				✓			
	Edit Analyst ID as is appropriate				✓			
Run log	Verify the correct samples and QC are run at the correct frequency (i.e., 10 samples per CCV)				✓			
Sample List	Confirm all Graphics have been uploaded (IC only)				✓			
	In edit mode, If prompted to process samples, select "Yes"				✓			
	Confirm samples are identified (Blue P Icon)				✓			
	Confirm correct analysis date and time are listed				✓			
	Confirm samples have the correct dilution factors. TOC – Check for manual dilutions not entered into instrument run log, Auto dilutions (Aut. Dil.) and Injections volume (Inj. Vol.)				✓			
	Confirm samples have the correct method chain assigned				✓			
Worksheet	Confirm that solid samples have the % moisture listed				N/A			
Reagents	Populate all appropriate fields in the worksheet. Initial Amount, Final Amount, pH, etc.				✓			
Results	Confirm reagents are correct and properly associated with QC samples. Confirm that reagent amounts are correct. If reagents are new, verify that the correct COA has been attached to the source standard				✓			
	Check for special instructions (Login, Method and Sample comments) - red notebook icon				✓			
QC Links	Check for any QC failures				✓			
	Set status for samples based on QC and sample results info (i.e., set to primary analysis with passing QC or reject samples without passing QC or samples that are over-range).				✓			
	Address any results that are reported without passing QC with an NCM				✓			
Hist. Data Check	Confirm QC links are correct				✓			
Sample List	Check historical data. Print charts for outliers. Take corrective action as is appropriate				✓			
	Re-calculate data and set to appropriate review status (1 st or 2 nd level review)				✓			
	Scan and attach raw data & save batch				✓			
Analyst: TP	Date: 06/08/15	2nd Level Reviewer:	Date:					

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\08.0000.d
 Lims ID: ICV
 Client ID:
 Sample Type: ICV
 Inject. Date: 05-Jun-2015 09:57:00 ALS Bottle#: 0 Worklist Smp#: 1
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-001 Temporary sequence for manual data acquisition
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist:

Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 08-Jun-2015 14:27:19 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d

Column 1 : Det: 0005
 Process Host: XAWRK022

First Level Reviewer: bensona Date: 05-Jun-2015 11:26:25

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.033	2.033	0.000	103288281	4.00	3.93	
2 Chloride	3.325	3.325	0.000	1399452566	80.0	81.0	
3 Nitrite as N	3.875	3.875	0.000	143700491	4.00	4.09	
4 Bromide	6.267	6.267	0.000	28428157	4.00	3.96	
5 Nitrate as N	6.808	6.808	0.000	178320429	4.00	4.03	
6 Sulfate	11.225	11.225	0.000	1029293087	80.0	82.0	
7 Orthophosphate as P	12.683	12.683	0.000	80306543	4.00	4.23	

Reagents:

IC CL ICV_00010 Amount Added: 0.40 Units: mL
 IC SO4 ICV_00014 Amount Added: 0.40 Units: mL
 IC ICV 5_00080 Amount Added: 0.40 Units: mL

TestAmerica Denver

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\08.0000.d

Injection Date: 05-Jun-2015 09:57:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: ICV

Worklist Smp#: 1

Client ID:

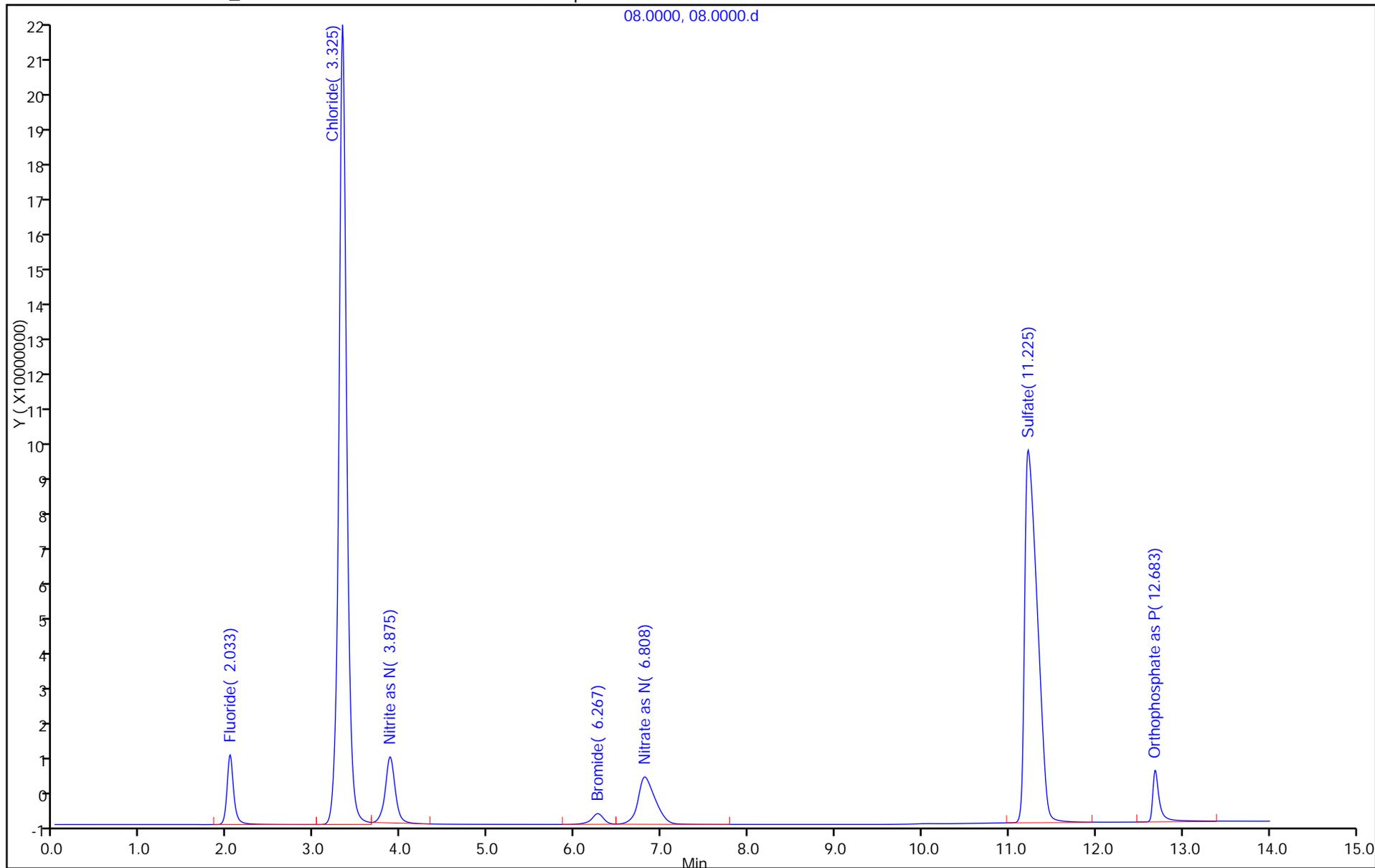
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\09.0000.d
 Lims ID: ICB
 Client ID:
 Sample Type: ICB
 Inject. Date: 05-Jun-2015 10:14:00 ALS Bottle#: 0 Worklist Smp#: 2
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-002 Temporary sequence for manual data acquisition
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 08-Jun-2015 14:27:19 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Process Host: XAWRK022

First Level Reviewer: bensona Date: 05-Jun-2015 11:27:35

Detector: 0005
 Number of peaks found: 7

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.042	1.842	2.208	722708	10.52	5.10		1 Fluoride
2.250	2.208	2.575	81737	1.19	8.29		
3.350	3.192	4.075	97384	1.42	8.90		2 Chloride
4.308	4.075	4.550	56163	0.82	7.67		
6.967	5.908	7.092	567811	8.27	31.48		5 Nitrate as N
11.558	11.192	11.583	1031788	15.03	15.24		6 Sulfate
12.783	12.483	13.017	4309462	62.76	16.03		7 Orthophosphate as P
			6867053			Totals	

Total Unknown Area% = 2.01

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\09.0000.d
 Lims ID: ICB
 Client ID:
 Sample Type: ICB
 Inject. Date: 05-Jun-2015 10:14:00 ALS Bottle#: 0 Worklist Smp#: 2
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-002 Temporary sequence for manual data acquisition
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 08-Jun-2015 14:27:19 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK022

First Level Reviewer: bensona Date: 05-Jun-2015 11:27:35

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.042	2.033	0.009	722708		-0.003262	
2 Chloride	3.350	3.325	0.025	97384		0.1048	
3 Nitrite as N		3.875				ND	
4 Bromide		6.267				ND	
5 Nitrate as N	6.967	6.808	0.159	567811		0.0371	
6 Sulfate	11.558	11.225	0.333	1031788		0.1143	
7 Orthophosphate as P	12.783	12.683	0.100	4309462		0.1139	

TestAmerica Denver

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\09.0000.d

Injection Date: 05-Jun-2015 10:14:00 Instrument ID: WC_IonChrom8

Lims ID: ICB

Operator ID:

Worklist Smp#: 2

Client ID:

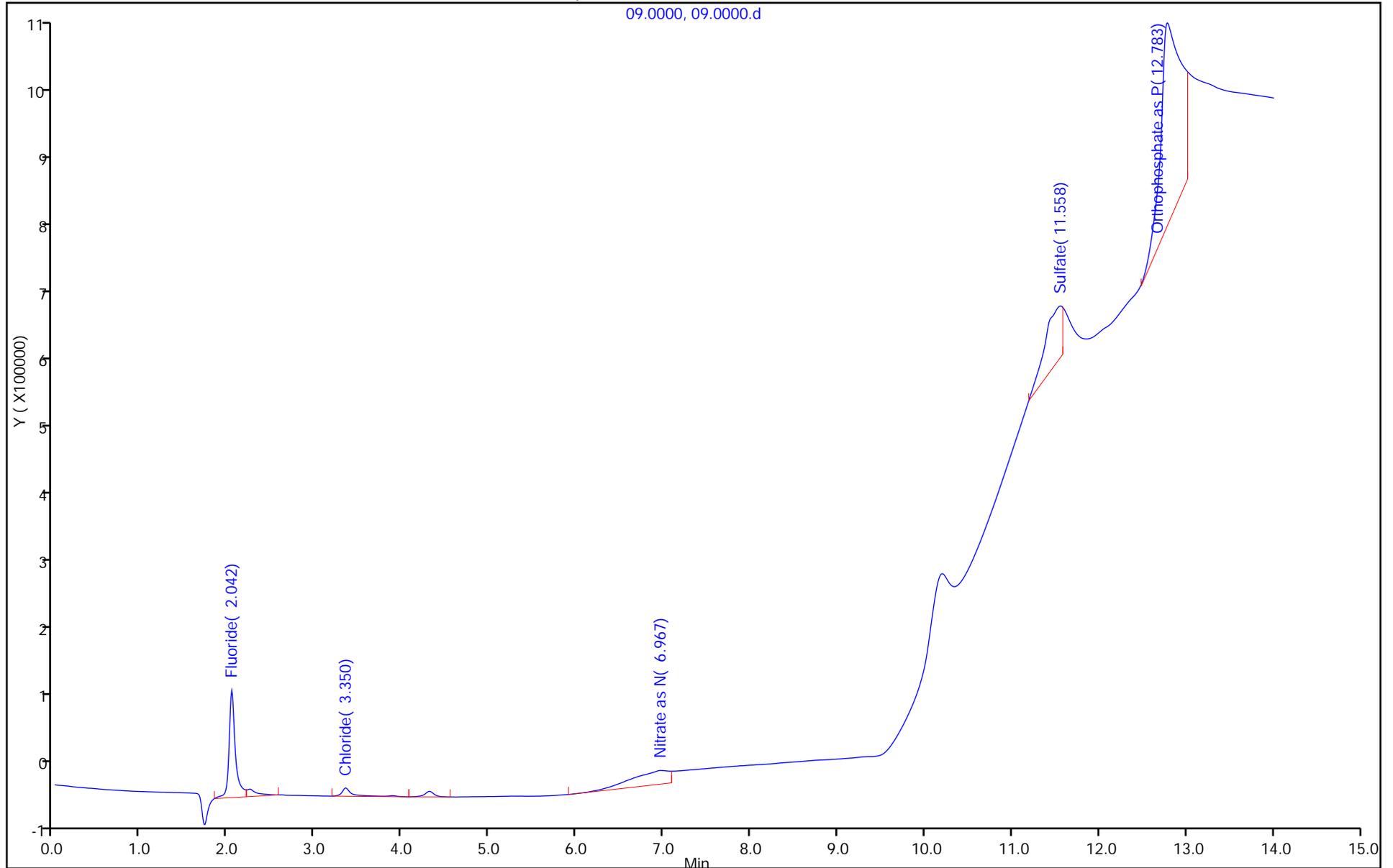
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\10.0000.d
 Lims ID: MRL
 Client ID:
 Sample Type: MRL
 Inject. Date: 05-Jun-2015 10:31:00 ALS Bottle#: 0 Worklist Smp#: 3
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-003 Temporary sequence for manual data acquisition
 Misc. Info.: 10
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 08-Jun-2015 14:27:19 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Process Host: XAWRK022

Detector: 0005

Number of peaks found: 7

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.050	1.842	2.892	5787581	5.48	4.85		1 Fluoride
3.358	3.092	3.675	42978750	40.70	5.99		2 Chloride
3.892	3.675	4.242	7957141	7.54	6.46		3 Nitrite as N
6.283	5.833	6.500	1154225	1.09	10.05		4 Bromide
6.942	6.500	7.567	8573262	8.12	11.65		5 Nitrate as N
11.417	11.158	11.808	31526879	29.86	5.03		6 Sulfate
12.750	12.483	13.117	7621200	7.22	13.05		7 Orthophosphate as P
			105599038			Totals	

Total Unknown Area% = 0.00

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\10.0000.d
 Lims ID: MRL
 Client ID:
 Sample Type: MRL
 Inject. Date: 05-Jun-2015 10:31:00 ALS Bottle#: 0 Worklist Smp#: 3
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-003 Temporary sequence for manual data acquisition
 Misc. Info.: 10
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 08-Jun-2015 14:27:19 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK022

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.050	2.033	0.017	5787581	0.2000	0.1911	
2 Chloride	3.358	3.325	0.033	42978750	2.50	2.58	
3 Nitrite as N	3.892	3.875	0.017	7957141	0.2000	0.1712	
4 Bromide	6.283	6.267	0.016	1154225	0.2000	0.2290	
5 Nitrate as N	6.942	6.808	0.134	8573262	0.2000	0.2170	
6 Sulfate	11.417	11.225	0.192	31526879	2.50	2.54	
7 Orthophosphate as P	12.750	12.683	0.067	7621200	0.2000	0.2930	

Reagents:

IC CAL cl/so4_00051 Amount Added: 0.05 Units: mL
 IC Cal low_00092 Amount Added: 0.02 Units: mL

TestAmerica Denver

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\10.0000.d

Injection Date: 05-Jun-2015 10:31:00 Instrument ID: WC_IonChrom8

Lims ID: MRL

Operator ID:

Worklist Smp#: 3

Client ID:

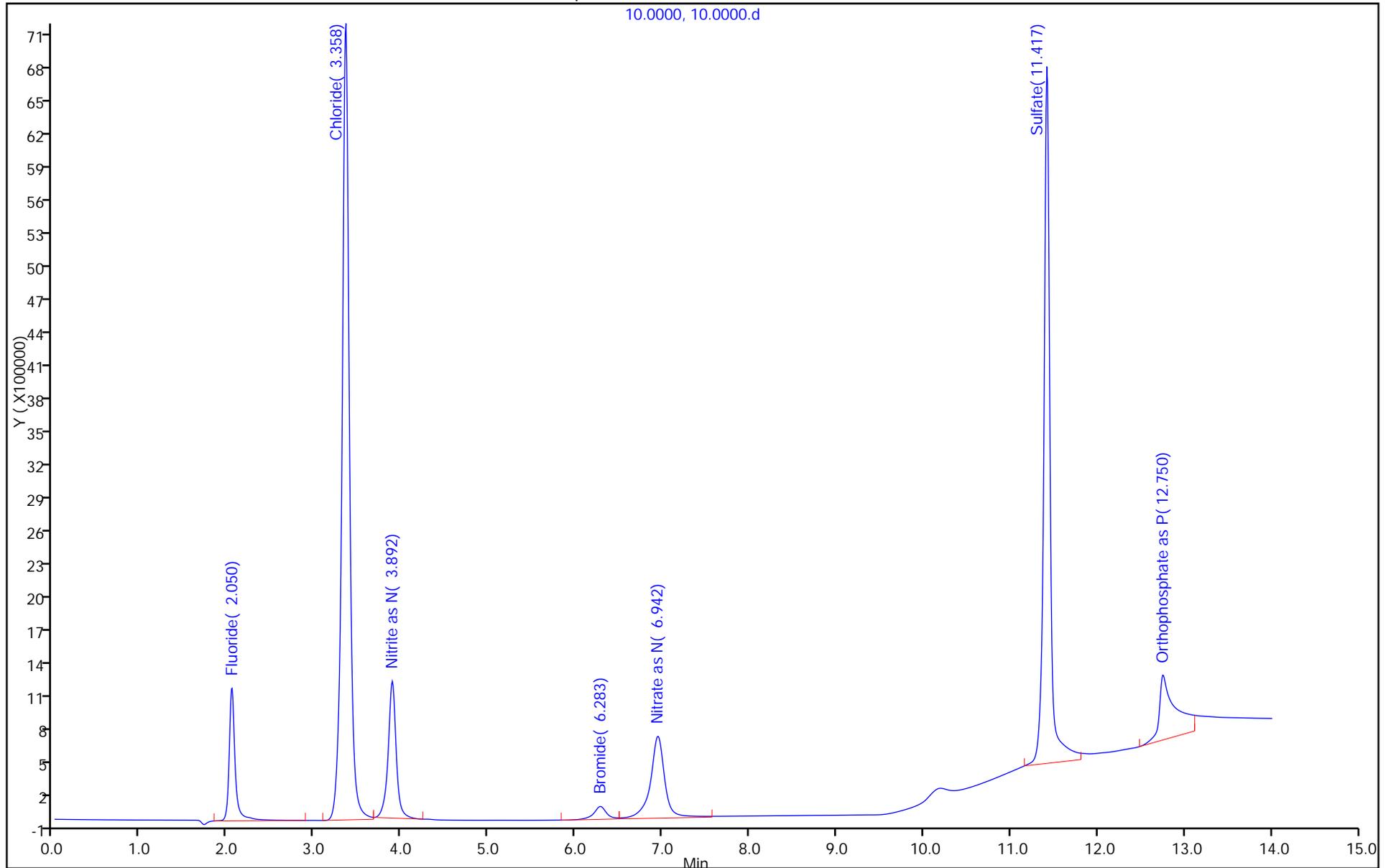
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\11.0000.d
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 05-Jun-2015 10:48:00 ALS Bottle#: 0 Worklist Smp#: 4
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-004 Temporary sequence for manual data acquisition
 Misc. Info.: 11 F
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 08-Jun-2015 14:27:19 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Process Host: XAWRK022

Detector: 0005
 Number of peaks found: 7

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.050	1.842	3.050	136412622	3.68	5.59		1 Fluoride
3.333	3.050	3.667	1746482885	47.18	6.20		2 Chloride
3.883	3.667	4.342	186676595	5.04	8.16		3 Nitrite as N
6.233	5.825	6.442	34674249	0.94	9.48		4 Bromide
6.750	6.442	7.833	221816201	5.99	14.01		5 Nitrate as N
11.217	10.983	11.850	1278130737	34.52	10.91		6 Sulfate
12.675	12.475	13.367	97863536	2.64	5.77		7 Orthophosphate as P
			3702056825			Totals	

Total Unknown Area% = 0.00

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\11.0000.d
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 05-Jun-2015 10:48:00 ALS Bottle#: 0 Worklist Smp#: 4
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-004 Temporary sequence for manual data acquisition
 Misc. Info.: 11 F
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 08-Jun-2015 14:27:19 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK022

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.050	2.033	0.017	136412622	5.00	5.20	
2 Chloride	3.333	3.325	0.008	1746482885	100.0	101.1	
3 Nitrite as N	3.883	3.875	0.008	186676595	5.00	5.34	
4 Bromide	6.233	6.267	-0.034	34674249	5.00	4.81	
5 Nitrate as N	6.750	6.808	-0.058	221816201	5.00	5.01	
6 Sulfate	11.217	11.225	-0.008	1278130737	100.0	101.8	
7 Orthophosphate as P	12.675	12.683	-0.008	97863536	5.00	5.18	

Reagents:

IC LCS_00279 Amount Added: 5.00 Units: mL

TestAmerica Denver

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\11.0000.d

Injection Date: 05-Jun-2015 10:48:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: LCS

Worklist Smp#: 4

Client ID:

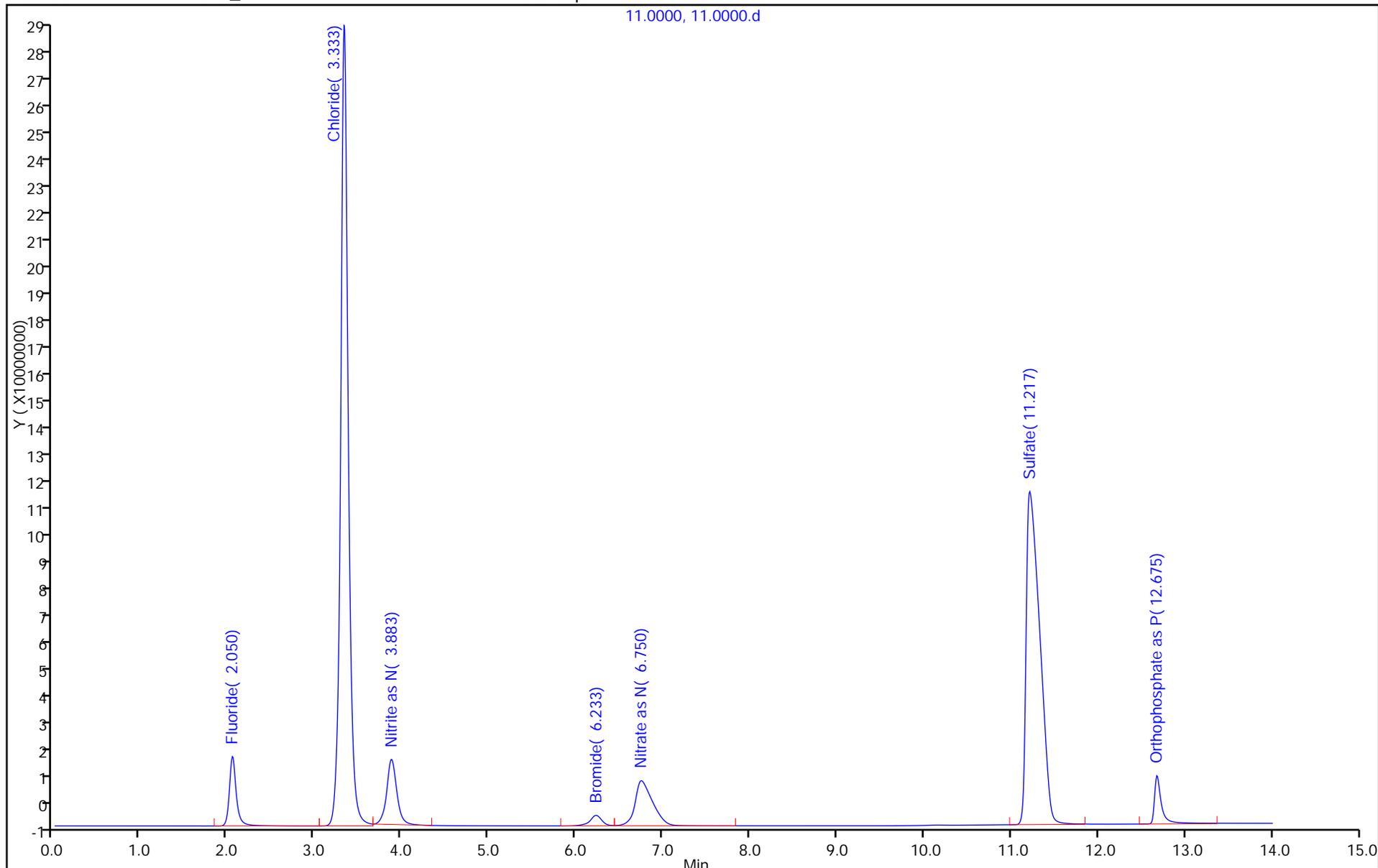
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\12.0000.d
 Lims ID: LCSD
 Client ID:
 Sample Type: LCSD
 Inject. Date: 05-Jun-2015 11:04:00 ALS Bottle#: 0 Worklist Smp#: 5
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-005 Temporary sequence for manual data acquisition
 Misc. Info.: 12 F
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 08-Jun-2015 14:27:19 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Process Host: XAWRK022

Detector: 0005

Number of peaks found: 7

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.050	1.842	3.050	136994707	3.70	5.59		1 Fluoride
3.333	3.050	3.667	1741510841	47.07	6.15		2 Chloride
3.883	3.667	4.342	187693329	5.07	8.08		3 Nitrite as N
6.225	5.825	6.433	34719449	0.94	9.28		4 Bromide
6.742	6.433	7.875	221889925	6.00	13.84		5 Nitrate as N
11.225	11.000	11.867	1277398331	34.53	10.90		6 Sulfate
12.683	12.483	13.383	99596608	2.69	5.76		7 Orthophosphate as P
			3699803190			Totals	

Total Unknown Area% = 0.00

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\12.0000.d
 Lims ID: LCSD
 Client ID:
 Sample Type: LCSD
 Inject. Date: 05-Jun-2015 11:04:00 ALS Bottle#: 0 Worklist Smp#: 5
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-005 Temporary sequence for manual data acquisition
 Misc. Info.: 12 F
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 08-Jun-2015 14:27:19 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK022

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.050	2.033	0.017	136994707	5.00	5.23	
2 Chloride	3.333	3.325	0.008	1741510841	100.0	100.8	
3 Nitrite as N	3.883	3.875	0.008	187693329	5.00	5.37	
4 Bromide	6.225	6.267	-0.042	34719449	5.00	4.82	
5 Nitrate as N	6.742	6.808	-0.066	221889925	5.00	5.01	
6 Sulfate	11.225	11.225	0.000	1277398331	100.0	101.8	
7 Orthophosphate as P	12.683	12.683	0.000	99596608	5.00	5.27	

Reagents:

IC LCS_00279 Amount Added: 5.00 Units: mL

TestAmerica Denver

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\12.0000.d

Injection Date: 05-Jun-2015 11:04:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: LCSD

Worklist Smp#: 5

Client ID:

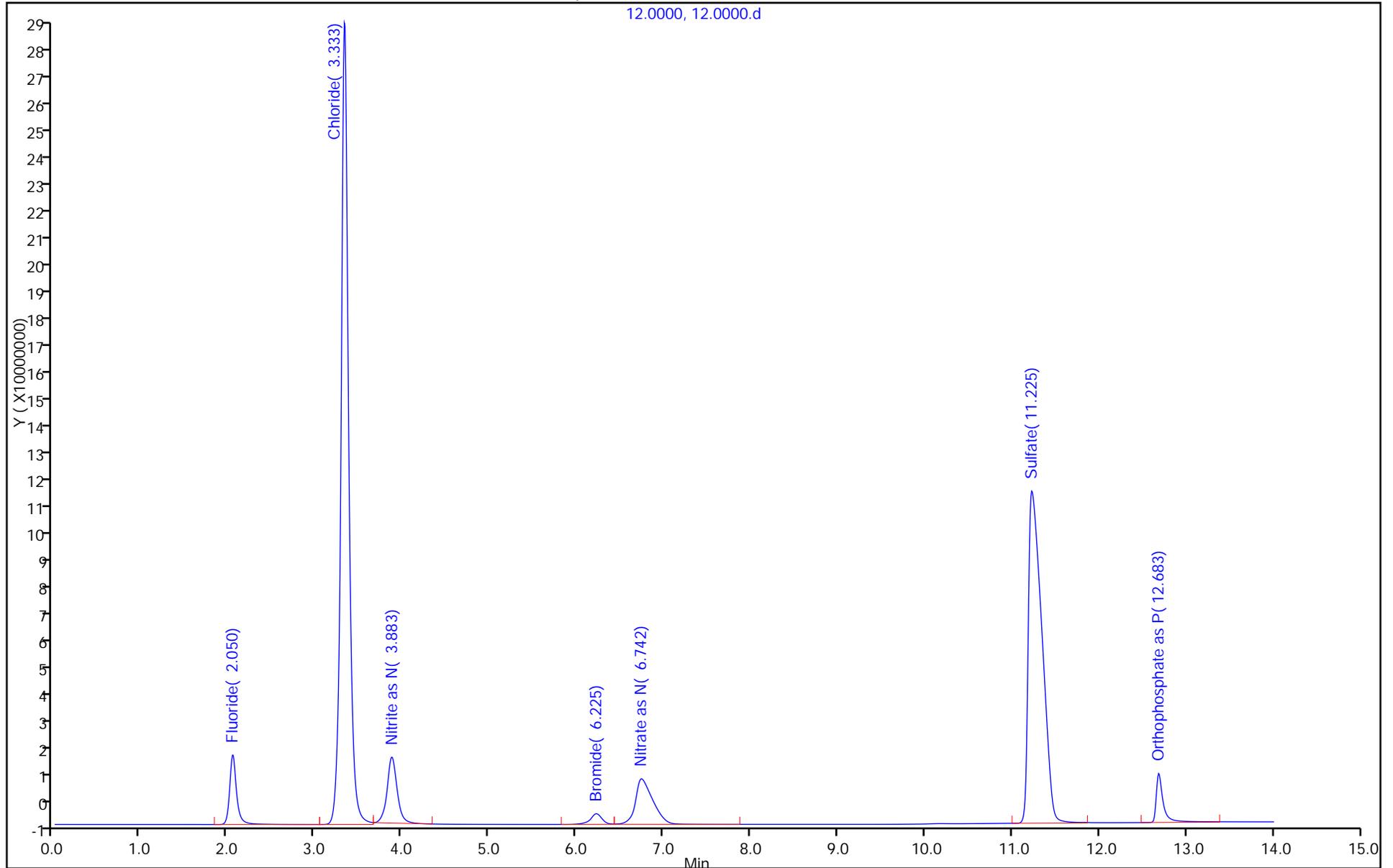
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\13.0000.d
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 05-Jun-2015 11:21:00 ALS Bottle#: 0 Worklist Smp#: 6
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-006 Temporary sequence for manual data acquisition
 Misc. Info.: 13 F
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 08-Jun-2015 14:27:19 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Process Host: XAWRK022

Detector: 0005
 Number of peaks found: 5

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.042	1.842	2.275	1328624	16.70	4.53		1 Fluoride
3.350	3.175	3.767	125100	1.57	8.03		2 Chloride
6.958	5.892	7.183	671715	8.44	29.16		5 Nitrate as N
11.450	11.267	11.467	264257	3.32	5.74		6 Sulfate
12.775	12.475	13.075	5565400	69.96	15.99		7 Orthophosphate as P
			7955096			Totals	

Total Unknown Area% = 0.00

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\13.0000.d
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 05-Jun-2015 11:21:00 ALS Bottle#: 0 Worklist Smp#: 6
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-006 Temporary sequence for manual data acquisition
 Misc. Info.: 13 F
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 08-Jun-2015 14:27:19 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK022

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.042	2.033	0.009	1328624		0.0200	
2 Chloride	3.350	3.325	0.025	125100		0.1064	
3 Nitrite as N		3.875				ND	
4 Bromide		6.267				ND	
5 Nitrate as N	6.958	6.808	0.150	671715		0.0395	
6 Sulfate	11.450	11.225	0.225	264257		0.0532	
7 Orthophosphate as P	12.775	12.683	0.092	5565400		0.1818	

TestAmerica Denver

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\13.0000.d

Injection Date: 05-Jun-2015 11:21:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: MB

Worklist Smp#: 6

Client ID:

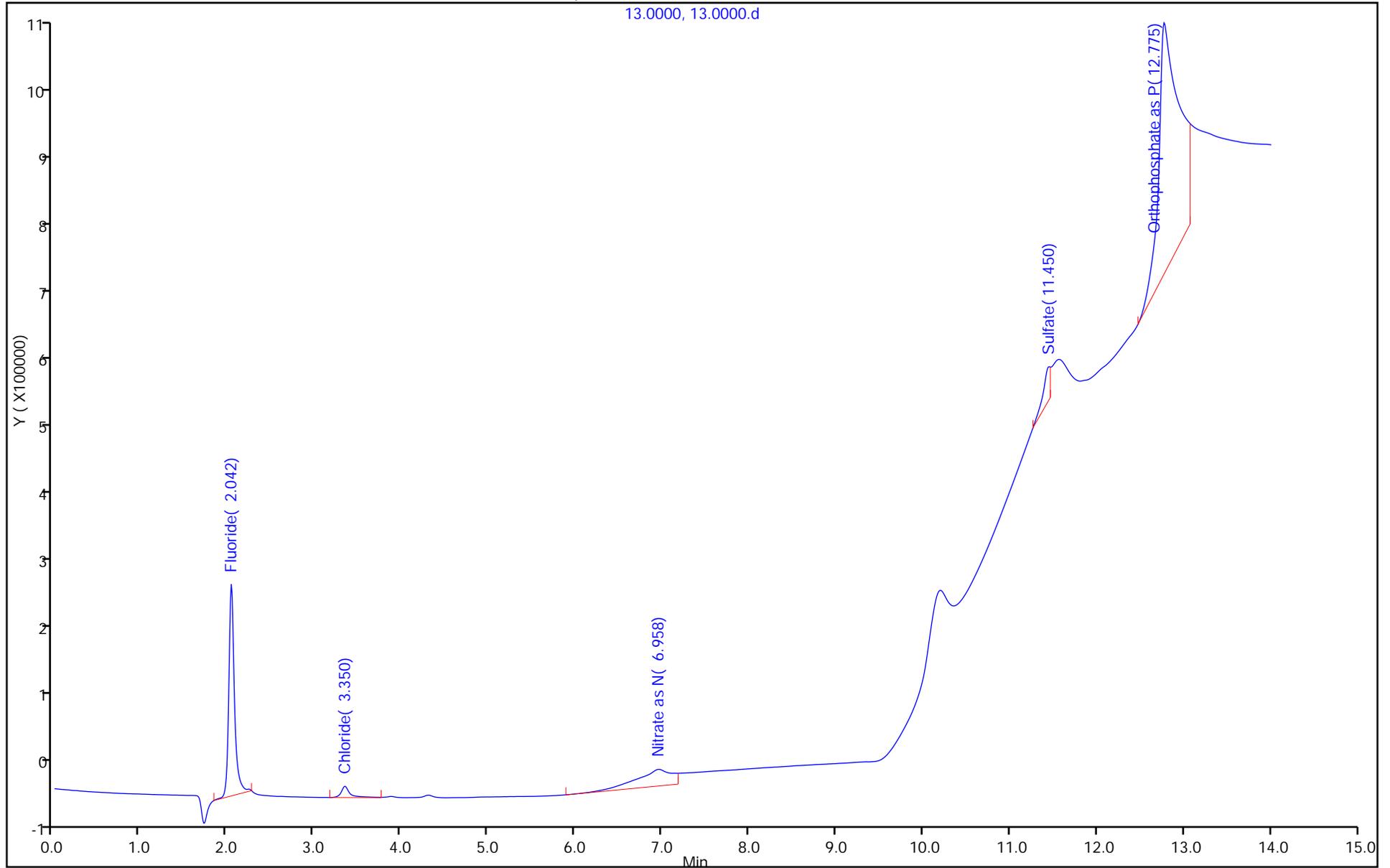
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\14.0000.d
 Lims ID: 280-70279-A-6 Lab Sample ID: 280-70279-6
 Client ID: 54400-MW55D-0615
 Sample Type: Client
 Inject. Date: 05-Jun-2015 11:38:00 ALS Bottle#: 0 Worklist Smp#: 7
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-007 Temporary sequence for manual data acquisition
 Misc. Info.: 23264 650 F
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 08-Jun-2015 14:27:19 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Process Host: XAWRK022

Detector: 0005
 Number of peaks found: 7

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.042	1.842	3.058	7267928	0.70	5.17		1 Fluoride
3.342	3.058	4.233	343043852	32.87	5.97		2 Chloride
6.083	5.817	6.217	435049	0.04	7.73		4 Bromide
6.608	6.217	7.142	48372334	4.63	10.15		5 Nitrate as N
8.025	7.367	11.033	315602065	30.24	126.30		
11.358	11.033	11.933	326944427	31.32	6.80		6 Sulfate
12.917	12.500	12.942	2056376	0.20	14.19		7 Orthophosphate as P
			1043722031			Totals	

Total Unknown Area% = 30.24

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\14.0000.d
 Lims ID: 280-70279-A-6 Lab Sample ID: 280-70279-6
 Client ID: 54400-MW55D-0615
 Sample Type: Client
 Inject. Date: 05-Jun-2015 11:38:00 ALS Bottle#: 0 Worklist Smp#: 7
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-007 Temporary sequence for manual data acquisition
 Misc. Info.: 23264 650 F
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 08-Jun-2015 14:27:19 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK022

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.042	2.033	0.009	7267928	0.2479	
2 Chloride	3.342	3.325	0.017	343043852	19.9	
3 Nitrite as N		3.875			ND	
4 Bromide	6.083	6.267	-0.184	435049	0.1307	
5 Nitrate as N	6.608	6.808	-0.200	48372334	1.11	
6 Sulfate	11.358	11.225	0.133	326944427	26.1	
7 Orthophosphate as P	12.917	12.683	0.234	2056376	-0.008013	

TestAmerica Denver

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\14.0000.d

Injection Date: 05-Jun-2015 11:38:00 Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: 280-70279-A-6 Lab Sample ID: 280-70279-6

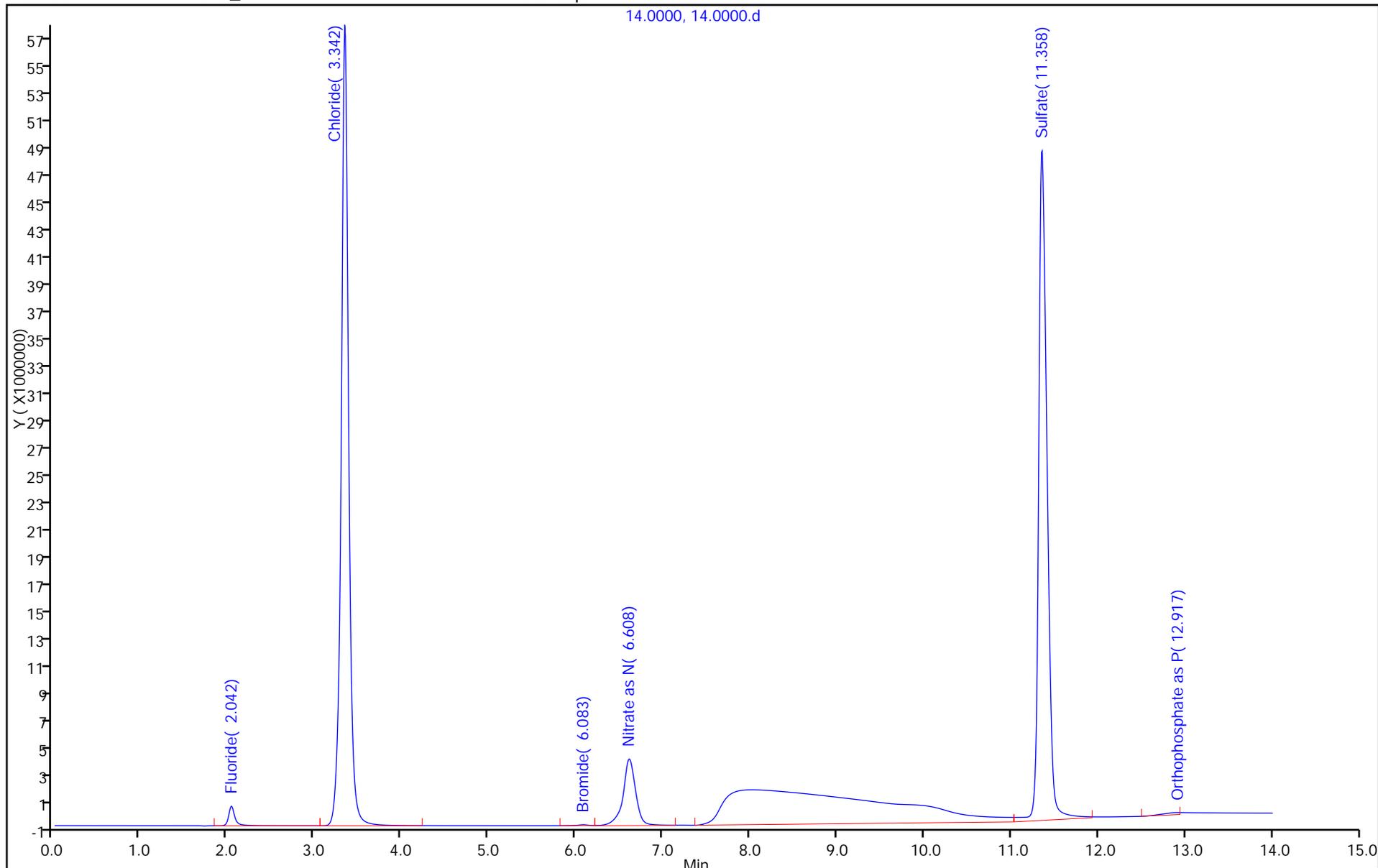
Worklist Smp#: 7

Client ID: 54400-MW55D-0615

Injection Vol: 25.0 ul Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8 Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\15.0000.d
 Lims ID: 280-70279-A-6 DU
 Client ID:
 Sample Type: DU
 Inject. Date: 05-Jun-2015 11:55:00 ALS Bottle#: 0 Worklist Smp#: 8
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-008 Temporary sequence for manual data acquisition
 Misc. Info.: 21705 650 F
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 08-Jun-2015 14:27:19 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Process Host: XAWRK022

First Level Reviewer: bensona Date: 05-Jun-2015 14:31:30

Detector: 0005

Number of peaks found: 7

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.042	1.842	3.042	7247397	0.73	5.18		1 Fluoride
3.342	3.042	4.192	343721358	34.47	5.99		2 Chloride
6.083	5.775	6.217	435053	0.04	7.75		4 Bromide
6.617	6.217	7.142	47688680	4.78	10.02		5 Nitrate as N
8.025	7.383	11.050	279090488	27.99	114.54		
11.350	11.167	11.975	316338881	31.72	6.60	M	6 Sulfate
12.983	12.492	13.008	2656289	0.27	19.60		7 Orthophosphate as P
			997178146			Totals	

Total Unknown Area% = 27.99

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\15.0000.d
 Lims ID: 280-70279-A-6 DU
 Client ID:
 Sample Type: DU
 Inject. Date: 05-Jun-2015 11:55:00 ALS Bottle#: 0 Worklist Smp#: 8
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-008 Temporary sequence for manual data acquisition
 Misc. Info.: 21705 650 F
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 08-Jun-2015 14:27:19 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK022

First Level Reviewer: benzona Date: 05-Jun-2015 14:31:30

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.042	2.033	0.009	7247397		0.2471	
2 Chloride	3.342	3.325	0.017	343721358		20.0	
3 Nitrite as N		3.875				ND	
4 Bromide	6.083	6.267	-0.184	435053		0.1307	
5 Nitrate as N	6.617	6.808	-0.191	47688680		1.10	
6 Sulfate	11.350	11.225	0.125	316338881		25.2	M
7 Orthophosphate as P	12.983	12.683	0.300	2656289		0.0244	

QC Flag Legend

Review Flags

M - Manually Integrated

TestAmerica Denver

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\15.0000.d

Injection Date: 05-Jun-2015 11:55:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: 280-70279-A-6 DU

Worklist Smp#: 8

Client ID:

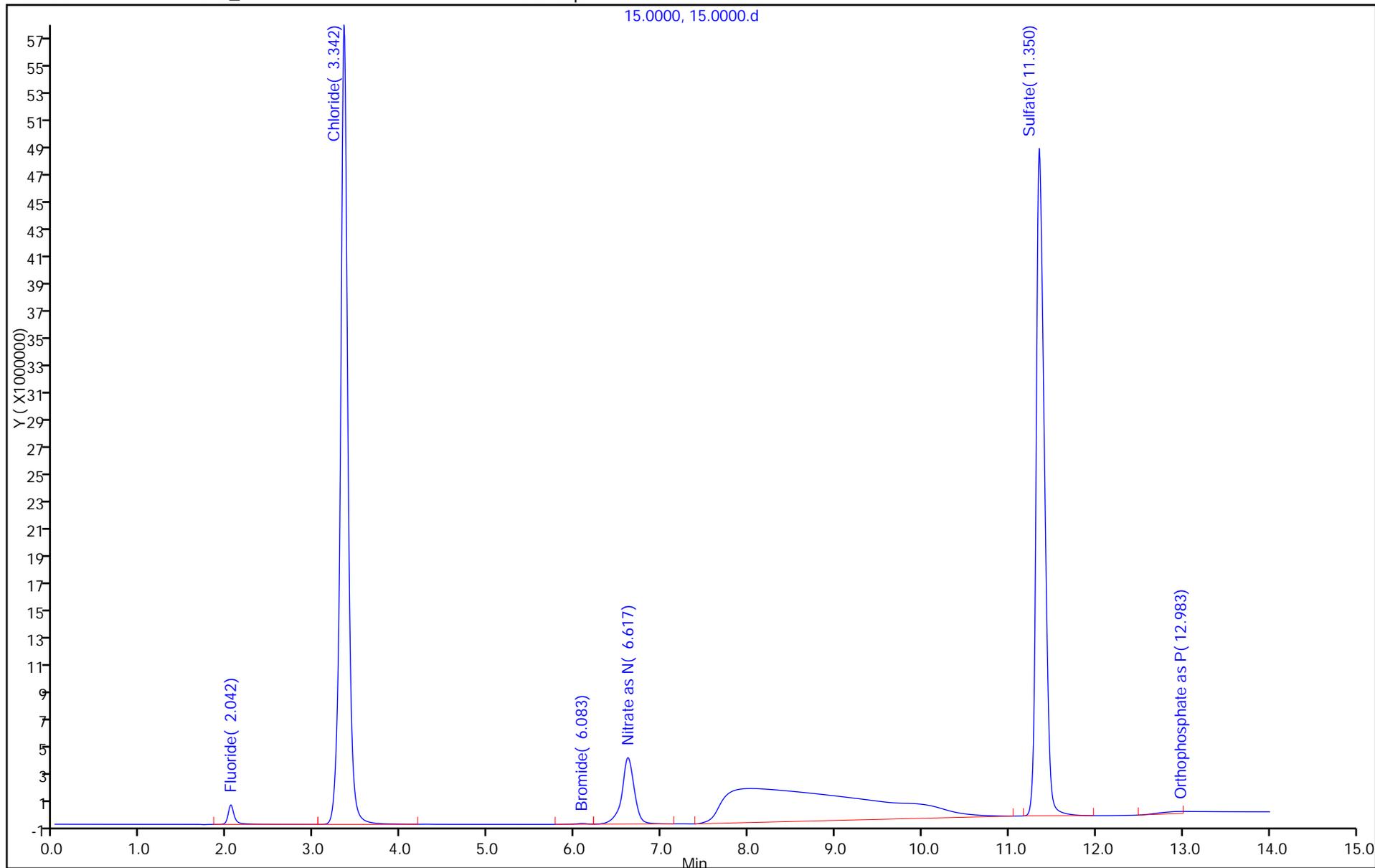
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\16.0000.d
 Lims ID: 280-70279-A-6 MS
 Client ID:
 Sample Type: MS
 Inject. Date: 05-Jun-2015 12:12:00 ALS Bottle#: 0 Worklist Smp#: 9
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-009 Temporary sequence for manual data acquisition
 Misc. Info.: 19534 650 F
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 08-Jun-2015 14:27:19 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Process Host: XAWRK022

Detector: 0005

Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.050	1.858	3.058	146865828	5.94	5.87		1 Fluoride
3.342	3.058	3.650	804505663	32.54	6.13		2 Chloride
3.875	3.650	4.450	183337906	7.42	7.97		3 Nitrite as N
6.058	5.683	6.225	36793724	1.49	8.52		4 Bromide
6.475	6.225	7.342	272043463	11.00	13.05		5 Nitrate as N
8.058	7.417	11.050	272979307	11.04	113.55		
11.300	11.050	11.950	663338550	26.83	8.54		6 Sulfate
12.700	12.500	13.583	92377443	3.74	7.42		7 Orthophosphate as P
			2472241884			Totals	

Total Unknown Area% = 11.04

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\16.0000.d
 Lims ID: 280-70279-A-6 MS
 Client ID:
 Sample Type: MS
 Inject. Date: 05-Jun-2015 12:12:00 ALS Bottle#: 0 Worklist Smp#: 9
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-009 Temporary sequence for manual data acquisition
 Misc. Info.: 19534 650 F
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 08-Jun-2015 14:27:19 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK022

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.050	2.033	0.017	146865828	5.00	5.61	
2 Chloride	3.342	3.325	0.017	804505663	25.0	46.6	
3 Nitrite as N	3.875	3.875	0.000	183337906	5.00	5.24	
4 Bromide	6.058	6.267	-0.209	36793724	5.00	5.10	
5 Nitrate as N	6.475	6.808	-0.333	272043463	5.00	6.14	
6 Sulfate	11.300	11.225	0.075	663338550	25.0	52.9	
7 Orthophosphate as P	12.700	12.683	0.017	92377443	5.00	4.88	

Reagents:

ICMS/MSD WEEK_00323 Amount Added: 0.05 Units: mL

TestAmerica Denver

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\16.0000.d

Injection Date: 05-Jun-2015 12:12:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: 280-70279-A-6 MS

Worklist Smp#: 9

Client ID:

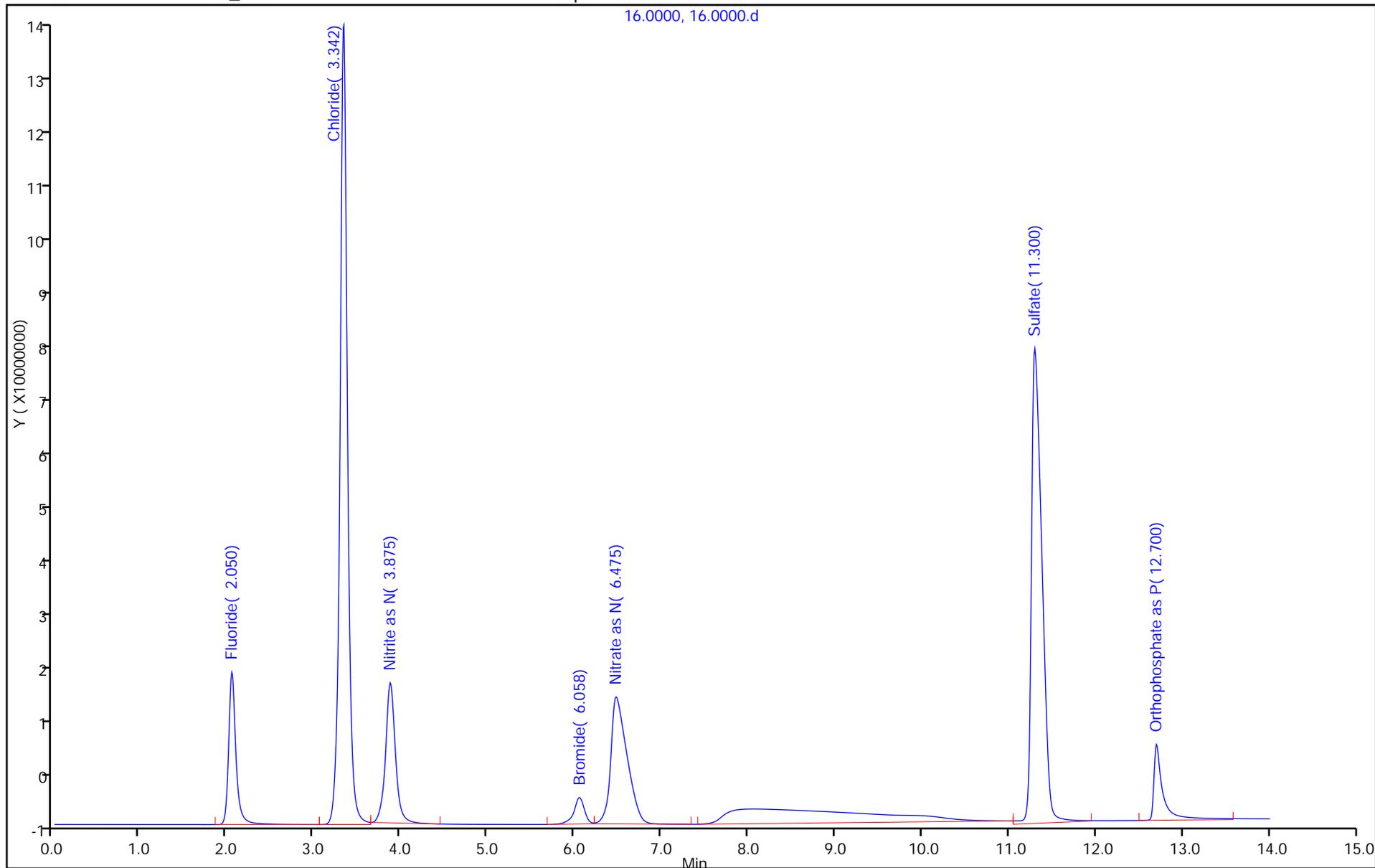
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\17.0000.d
 Lims ID: 280-70279-A-6 MSD
 Client ID:
 Sample Type: MSD
 Inject. Date: 05-Jun-2015 12:29:00 ALS Bottle#: 0 Worklist Smp#: 10
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-010 Temporary sequence for manual data acquisition
 Misc. Info.: 12466 650 F
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 08-Jun-2015 14:27:19 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Process Host: XAWRK022

First Level Reviewer: phantl Date: 05-Jun-2015 17:57:41

Detector: 0005
 Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.050	1.858	3.058	149162332	5.98	5.90		1 Fluoride
3.342	3.058	3.650	810059554	32.49	6.14		2 Chloride
3.875	3.650	4.450	185674021	7.45	7.98		3 Nitrite as N
6.050	5.683	6.217	36949672	1.48	8.50		4 Bromide
6.475	6.217	7.333	273692320	10.98	13.05		5 Nitrate as N
8.042	7.408	11.050	273687309	10.98	113.72		
11.300	11.050	11.967	666912581	26.74	8.58		6 Sulfate
12.700	12.483	13.600	97463537	3.91	7.56		7 Orthophosphate as P
			2493601326			Totals	

Total Unknown Area% = 10.98

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\17.0000.d
 Lims ID: 280-70279-A-6 MSD
 Client ID:
 Sample Type: MSD
 Inject. Date: 05-Jun-2015 12:29:00 ALS Bottle#: 0 Worklist Smp#: 10
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-010 Temporary sequence for manual data acquisition
 Misc. Info.: 12466 650 F
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 08-Jun-2015 14:27:19 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK022

First Level Reviewer: phantl Date: 05-Jun-2015 17:57:41

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.050	2.033	0.017	149162332	5.00	5.69	
2 Chloride	3.342	3.325	0.017	810059554	25.0	46.9	
3 Nitrite as N	3.875	3.875	0.000	185674021	5.00	5.31	
4 Bromide	6.050	6.267	-0.217	36949672	5.00	5.12	
5 Nitrate as N	6.475	6.808	-0.333	273692320	5.00	6.18	
6 Sulfate	11.300	11.225	0.075	666912581	25.0	53.2	
7 Orthophosphate as P	12.700	12.683	0.017	97463537	5.00	5.15	

Reagents:

ICMS/MSD WEEK_00323 Amount Added: 0.05 Units: mL

TestAmerica Denver

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\17.0000.d

Injection Date: 05-Jun-2015 12:29:00 Instrument ID: WC_IonChrom8

Lims ID: 280-70279-A-6 MSD

Operator ID:

Client ID:

Worklist Smp#: 10

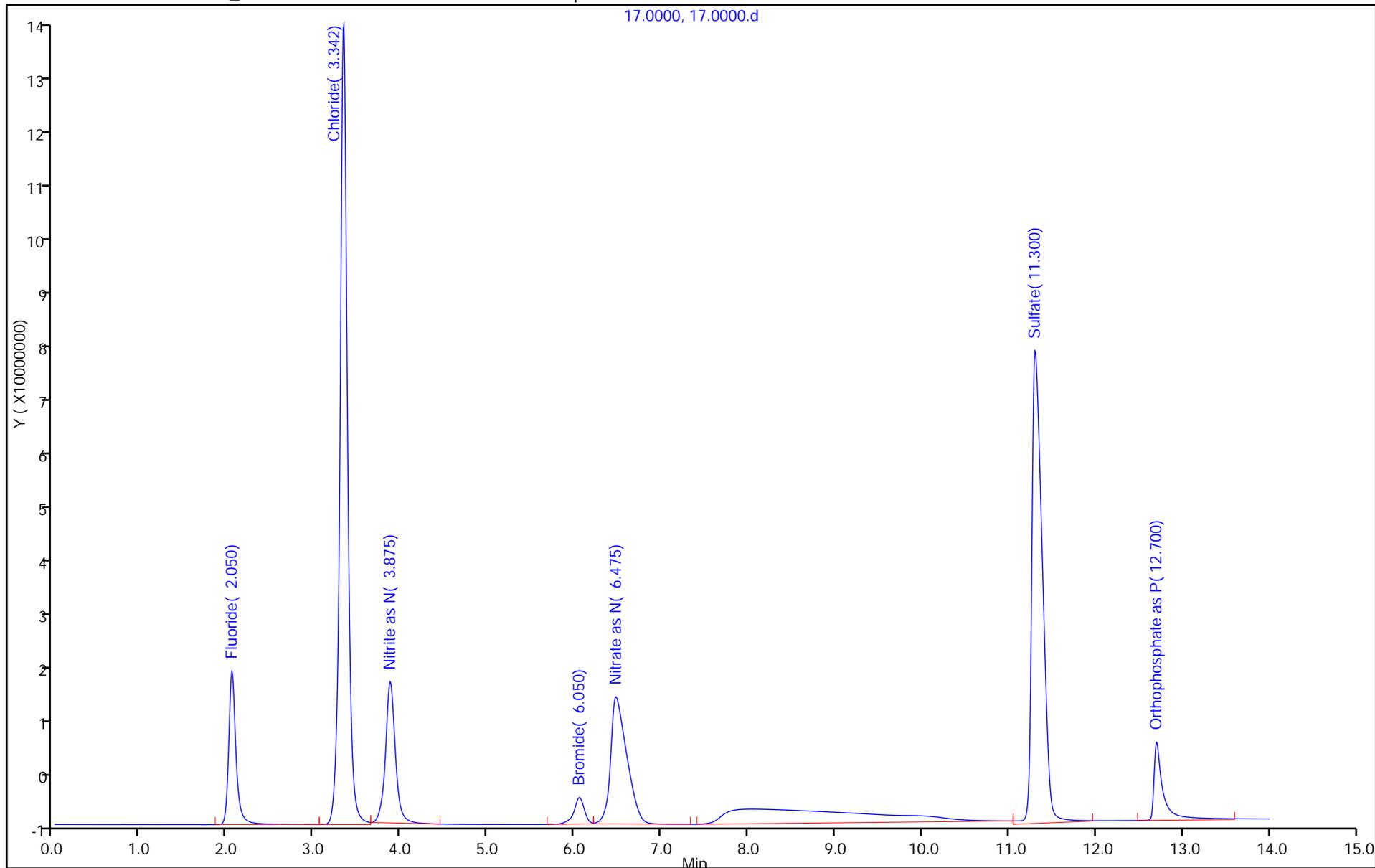
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\24.0000.d
 Lims ID: ccv
 Client ID:
 Sample Type: CCV
 Inject. Date: 05-Jun-2015 14:50:00 ALS Bottle#: 0 Worklist Smp#: 18
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-018 Temporary sequence for manual data acquisition
 Misc. Info.: 17645
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 08-Jun-2015 14:27:28 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Process Host: XAWRK022

Detector: 0005
 Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.058	1.842	3.058	137763327	3.69	5.63		1 Fluoride
3.342	3.058	3.683	1747500562	46.76	6.15		2 Chloride
3.892	3.683	4.367	187316750	5.01	8.07		3 Nitrite as N
6.233	5.833	6.442	35081352	0.94	9.13		4 Bromide
6.750	6.442	7.908	223176055	5.97	13.69		5 Nitrate as N
11.258	11.033	11.892	1283177757	34.34	10.88		6 Sulfate
12.717	12.208	13.150	120467476	3.22	9.14		7 Orthophosphate as P
13.250	13.150	13.425	2301454	0.06	7.25		
			3736784733			Totals	

Total Unknown Area% = 0.06

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
CCV, Cal Verification Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\24.0000.d
 Lims ID: ccv
 Client ID:
 Sample Type: CCV
 Inject. Date: 05-Jun-2015 14:50:00 ALS Bottle#: 0 Worklist Smp#: 18
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-018 Temporary sequence for manual data acquisition
 Misc. Info.: 17645
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 08-Jun-2015 14:27:28 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK022
 Start Cal Date: 15-May-2015 11:49:00
 End Cal Date: 15-May-2015 13:13:00

Compound	Standard RRF/Amt	DLT RT	Ccal Amt	Ccal RF	%D	Max. %D	%Rec
1 Fluoride	5.00	0.025	5.26	27552665	5.1	10	105
2 Chloride	100.0	0.017	101.1	17475006	1.1	10	101
3 Nitrite as N	5.00	0.017	5.36	37463350	7.1	10	107
4 Bromide	5.00	-0.034	4.87	7016270	-2.7	10	97
5 Nitrate as N	5.00	-0.058	5.04	44635211	0.8	10	101
6 Sulfate	100.0	0.033	102.2	12831778	2.2	10	102
7 Orthophosphate as P	5.00	0.034	6.40	24093495	28.0	10	128

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\24.0000.d
 Lims ID: ccv
 Client ID:
 Sample Type: CCV
 Inject. Date: 05-Jun-2015 14:50:00 ALS Bottle#: 0 Worklist Smp#: 18
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-018 Temporary sequence for manual data acquisition
 Misc. Info.: 17645
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 08-Jun-2015 14:27:28 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK022

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.058	2.033	0.025	137763327	5.00	5.26	
2 Chloride	3.342	3.325	0.017	1747500562	100.0	101.1	
3 Nitrite as N	3.892	3.875	0.017	187316750	5.00	5.36	
4 Bromide	6.233	6.267	-0.034	35081352	5.00	4.87	
5 Nitrate as N	6.750	6.808	-0.058	223176055	5.00	5.04	
6 Sulfate	11.258	11.225	0.033	1283177757	100.0	102.2	
7 Orthophosphate as P	12.717	12.683	0.034	120467476	5.00	6.40	

Reagents:

IC LCS_00279 Amount Added: 5.00 Units: mL

TestAmerica Denver

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\24.0000.d

Injection Date: 05-Jun-2015 14:50:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: ccv

Worklist Smp#: 18

Client ID:

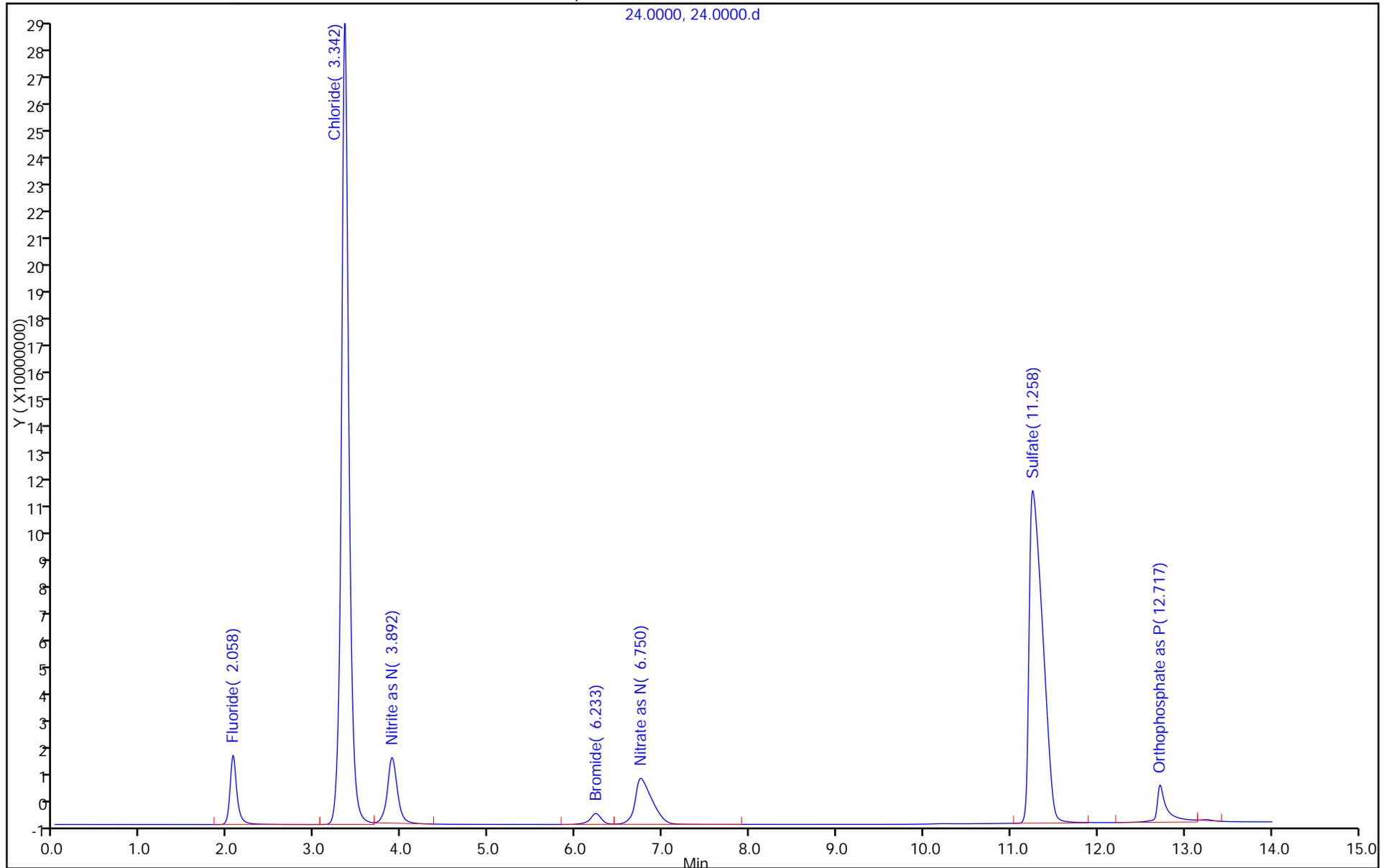
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\25.0000.d
 Lims ID: ccb
 Client ID:
 Sample Type: CCB
 Inject. Date: 05-Jun-2015 15:07:00 ALS Bottle#: 0 Worklist Smp#: 19
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-019 Temporary sequence for manual data acquisition
 Misc. Info.: 23761
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 08-Jun-2015 14:27:28 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Process Host: XAWRK022

Detector: 0005
 Number of peaks found: 7

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.050	1.842	2.225	602867	5.68	5.34		1 Fluoride
2.258	2.225	2.583	64370	0.61	8.10		
3.358	3.192	4.108	117984	1.11	8.78		2 Chloride
4.317	4.117	4.567	29551	0.28	7.11		
6.958	6.525	7.158	324269	3.05	17.57		5 Nitrate as N
11.475	11.175	11.533	813195	7.66	8.66		6 Sulfate
12.942	12.467	13.183	8667696	81.62	23.31		7 Orthophosphate as P
			10619932			Totals	

Total Unknown Area% = 0.88

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
 Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\25.0000.d
 Lims ID: ccb
 Client ID:
 Sample Type: CCB
 Inject. Date: 05-Jun-2015 15:07:00 ALS Bottle#: 0 Worklist Smp#: 19
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-019 Temporary sequence for manual data acquisition
 Misc. Info.: 23761
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 08-Jun-2015 14:27:28 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK022

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.050	2.033	0.017	602867		-0.007861	
2 Chloride	3.358	3.325	0.033	117984		0.1060	
3 Nitrite as N		3.875				ND	
4 Bromide		6.267				ND	
5 Nitrate as N	6.958	6.808	0.150	324269		0.0317	
6 Sulfate	11.475	11.225	0.250	813195		0.0969	
7 Orthophosphate as P	12.942	12.683	0.259	8667696		0.3496	

TestAmerica Denver

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\25.0000.d

Injection Date: 05-Jun-2015 15:07:00 Instrument ID: WC_IonChrom8

Lims ID: ccb

Operator ID:
Worklist Smp#: 19

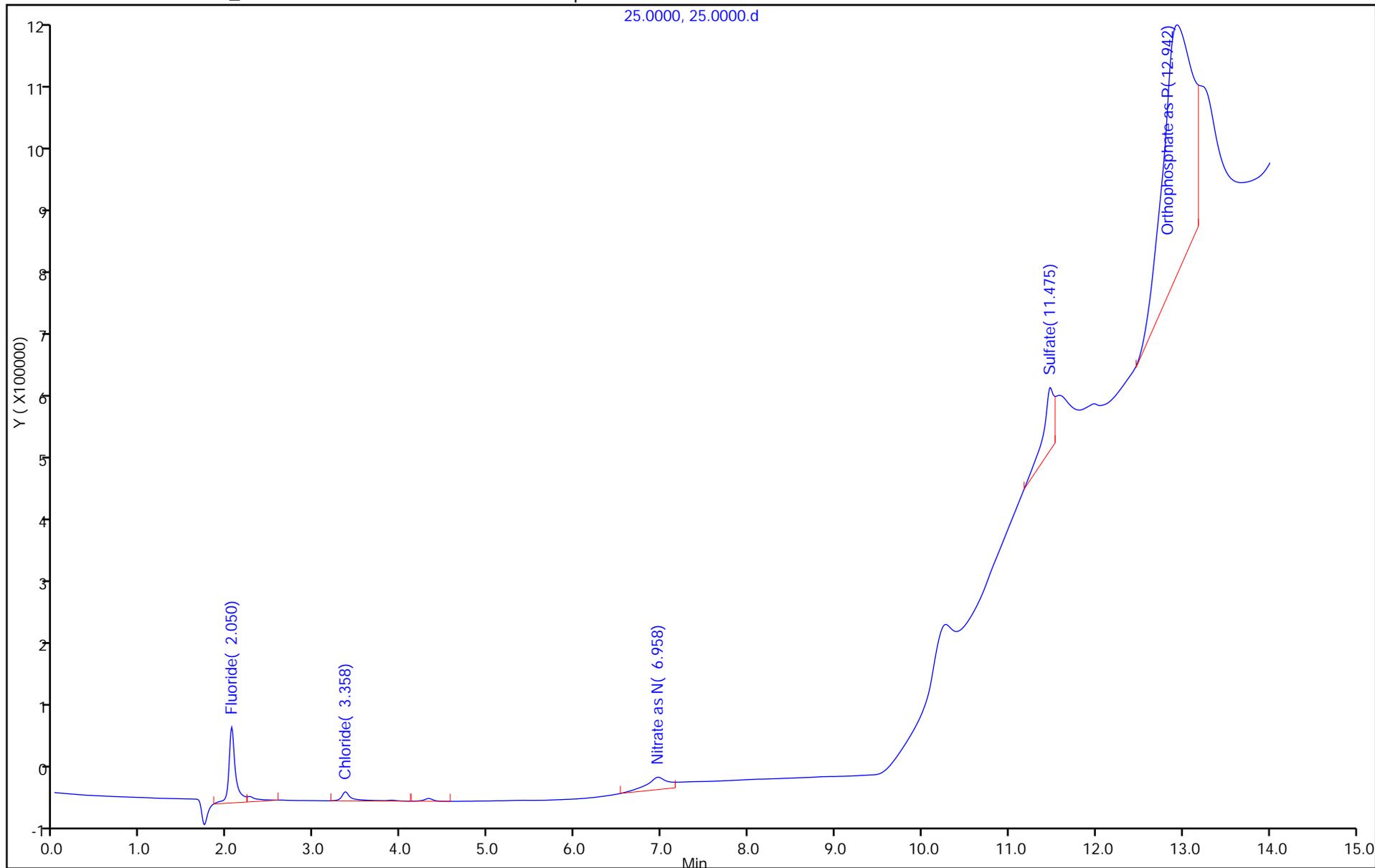
Client ID:

Injection Vol: 25.0 ul Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8 Limit Group: Wet - Anions

25.0000, 25.0000.d



TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\Anions_IC8.m

Instrument: WC_IonChrom8

Lims Location: 280

Lock State: Unlocked

Cpnd Order: Retention Time

Integrator: Falcon

Last Modified: 16-May-2015 08:22:09

No.Compounds:7

Initial Calibration Batches

Ical Batch: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b

Inj Date : 15-May-2015 11:49:00, Sublist: chrom-Anions_IC8*sub1

Detector 1: 0005

Compound	Wet - Anions				Wet - Anions 28D			
	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride	807695	2605614		0.999	807695	2605614		0.999
2 Chloride	-171611	1729726		1.000	-171611	1729726		1.000
3 Nitrite as N	2035263	3459668		0.998	2035263	3459668		0.998
4 Bromide	-521371	7317374		1.000	-521371	7317374		1.000
5 Nitrate as N	-108450	4449596		1.000	-108450	4449596		1.000
6 Sulfate	-403177	1255461		1.000	-403177	1255461		1.000
7 Orthophosphate as P	2204503	1848477		0.997	2204503	1848477		0.997

Data Review Checklist – Calibration Methods

Method(s): 300/9056	Instrument: ICB	Run Date 5/15/15	Analyst Initials: TP/MLP	SOP #: WC-0020
	Prep Batch(s): N/A		Analytical Batch: 277676-277677	

A. Calibration/Instrument Run QC	Yes	No	N/A	2nd
Minimum of five standards in ICAL or as specified in SOP?	✓			
Correlation coefficient ≥ 0.995 ?	✓			
Second-source ICV analyzed, and recovery within acceptance limits?	✓			✓
ICB analyzed immediately after the ICV & results < the RL	✓			✓
CCV analyzed after every ten samples & recovery within acceptance limits?	✓			✓
CCB analyzed after every CCV & results < RL?	✓			✓
Absolute value of the x intercept is < ± 1/2 the RL?	✓			✓
Elution order verified? (anions)	✓			✓
Were manual integrations performed correctly and properly documented? (anions)	✓			✓
B. Sample Results				
All samples greater than highest calibration standard diluted and reanalyzed?	✓			✓
Do associated RLs/MDLs reflect dilutions or limited sample volume?	✓			✓
All reported results bracketed by in control CCV results?	✓			✓
Sample analyses done within holding time? If no, create HTV NCM. NCM #	✓			✓
Are any results over calibration range? If reported, are results E flagged?		✓		✓
Are J values the result of over dilution?		✓		✓
Client requirements reviewed and met?	✓			✓
Were data manually transcribed from instrument printouts or benchsheets into TALS verified 100% including dilution factors, significant figures and correct units? (If Applicable)	✓			✓
Do the prep and analysis dates in TALS reflect the actual dates?	✓			
Were peak assignments verified? (anions)	✓			✓
Were manual integrations performed correctly and properly documented? (anions)	✓			✓
C. Preparation/Matrix QC				
Method blank < 1/2 RL or all reported samples > 10x blank have NCM? - (COD, Phenol MB <RL)	✓			✓
Method blank < 1/2 RL or NCM provided? - (COD, Phenol MB <RL)	✓			✓
LCS/LCSD run for batch and within QC limits?	✓			✓
MS/MSD run at required frequency? Verify that MS/MSD failures are matrix issues and not analytical issues such as not spiking or not applying the appropriate dilution.	✓			✓
DUP run at required frequency?	✓			✓

Menu or Tab	Check	1 st	2 nd
Analyst Desktop	Create or open batch		
View Batch Info	Confirm all fields are populated	✓	✓
	Edit Analyst ID as is appropriate	✓	✓
Run log	Verify the correct samples and QC are run at the correct frequency (i.e., 10 samples per CCV)	✓	✓
Sample List	Confirm all Graphics have been uploaded (IC only)	✓	✓
	In edit mode, if prompted to process samples, select "Yes"	✓	✓
	Confirm samples are identified (Blue P Icon)	✓	✓
	Confirm correct analysis date and time are listed	✓	✓
	Confirm samples have the correct dilution factors. TOC – Check for manual dilutions not entered into instrument run log, Auto dilutions (Aut. Dil.) and Injections volume (Inj. Vol.)	✓	✓
	Confirm samples have the correct method chain assigned	✓	✓
	Confirm that solid samples have the % moisture listed	N/A	N/A
Worksheet	Populate all appropriate fields in the worksheet. Initial Amount, Final Amount, pH, etc.	✓	✓
Reagents	Confirm reagents are correct and properly associated with QC samples. Confirm that reagent amounts are correct. If reagents are new, verify that the correct COA has been attached to the source standard	✓	✓
Results	Check for special instructions (Login, Method and Sample comments) - red notebook icon	✓	✓
	Check for any QC failures	✓	✓
	Set status for samples based on QC and sample results info (i.e., set to primary analysis with passing QC or reject samples without passing QC or samples that are over-range).	✓	✓
	Address any results that are reported without passing QC with an NCM	✓	✓
QC Links	Confirm QC links are correct	✓	✓
Hist. Data Check	Check historical data. Print charts for outliers. Take corrective action as is appropriate	✓	✓
Sample List	Re-calculate data and set to appropriate review status (1 st or 2 nd level review)	✓	✓
	Scan and attach raw data & save batch	✓	✓
Analyst: <i>[Signature]</i>	Date: 5/16/15	2nd Level Reviewer: <i>[Signature]</i>	Date: 5/18/15

IC Instrument Information

WL: 35069 Inst ID: 8 Analysis Date: 05/15 Analyst: TP

AMEC →
↓
need dilution
log sheet

Rush	Job No.	Samples	Anions	QC Req	HT Exp
<input checked="" type="checkbox"/>	<u>69289</u>	<u>5</u>	F <u>Cl</u> NO2 Br <u>NO3</u> PO4 <u>SO4</u>	MS/D	
<input checked="" type="checkbox"/>	<u>69318</u>	<u>1</u>	F <u>Cl</u> <u>NO2</u> Br <u>NO3</u> PO4 SO4	MS/D	
<input type="checkbox"/>	<u>68869</u>	<u>1</u>	F <u>Cl</u> NO2 <u>Br</u> NO3 PO4 <u>SO4</u>	<u>MS/D</u> |	
<input type="checkbox"/>	<u>68917</u>	<u>1</u>	F <u>Cl</u> NO2 Br NO3 PO4 <u>SO4</u>	MS/D	
<input type="checkbox"/>	<u>68703</u>	<u>1</u>	F Cl NO2 Br NO3 PO4 <u>SO4</u>	MS/D	
<input type="checkbox"/>	<u>68923</u>	<u>1</u>	F <u>Cl</u> NO2 <u>Br</u> NO3 PO4 <u>SO4</u>	<u>MS/D</u> |	
<input type="checkbox"/>	<u>68926</u>	<u>1</u>	F <u>Cl</u> NO2 <u>Br</u> NO3 PO4 <u>SO4</u>	MS/D	
<input type="checkbox"/>			F Cl NO2 Br NO3 PO4 SO4	MS/D	
<input type="checkbox"/>	<u>67439</u>	<u>Az</u>	F <u>Cl</u> NO2 <u>Br</u> <u>NO3</u> <u>PO4</u> <u>SO4</u>	MS/D	<u>LOQV & MDLV</u>
<input type="checkbox"/>			F Cl NO2 Br NO3 PO4 SO4	MS/D	
<input type="checkbox"/>			F Cl NO2 Br NO3 PO4 SO4	MS/D	
<input type="checkbox"/>			F Cl NO2 Br NO3 PO4 SO4	MS/D	
<input type="checkbox"/>			F Cl NO2 Br NO3 PO4 SO4	MS/D	
<input type="checkbox"/>			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
<u>69289</u>	<u>3,4,7,10</u>	F <u>Cl</u> NO2 Br NO3 PO4 <u>SO4</u>	<u>10x</u>	<u>high</u>
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

22
7

**TestAmerica Denver
Priority Form**

Log-in Number: 69289
 Client: AMEC Basis MAES

Project Manager: JJ

Time Zone:

Receiving	Initials: <u>JS</u>	Date/Time: <u>5/15/15 0940</u>
Dept. Rep. / Analyst	<u>NS</u>	<u>051515 1914</u>

EDT/EST	CDT/CST	<u>MDT/MST</u>	PDT/PST
Other:			

HT	Analysis	Min Volume needed (mL)	Method	Sample(s)	MS/MSD Required
Priority I	Chromium (VI) (24 h) [Circle Method]	100	3500-Cr B/D or 7196A		
	Hydrazine (Waters & Solids)	100	Denver		
	Biological Oxygen Demand	1000	5210 B		
	Carbonaceous BOD (cBOD)	1000	5210 B		
Priority II (48 h)	Cyanide Preservation	100	335.4 / 4500-CN		
	Color	100	2120 B		
	Nitrite by Spec (COC May Only list Nitrate)	100	353.2/4500-NO ₂ B		
	Orthophosphate by Spec.	50	365.1*		
	Nitrate by IC	50	300.0/9056	1, 3, 4, 7, 10	
	Nitrite by IC	50	300.0/9056		
	Orthophosphate by IC	50	300.0/9056*		
	Settleable Solids	1000	SM2540F		
Priority III	Turbidity	50	180.1		
	Dissolved Oxygen	100	4500-O G		
	Free Carbon Dioxide (CO ₂)	100	4500-CO ₂		
	Sulfite (SO ₃ ²⁻)	100	4500-SO ₃ B		
	pH (water)	100	4500-H (8, 9040/9045)	3, 4, 7, 10	
	pH (soil Hanford)	5 g	9045C		
Ferrous Iron	100	3500-FE D	1, 3, 4, 7, 10		

Potentially Dissolved Metals (wait 8-96 hours to filter):	<input type="checkbox"/>
Preserve:	<input type="checkbox"/>
Filter:	<input type="checkbox"/>
Split:	<input type="checkbox"/>
Composite: <u>NO₃ Li SO₄</u>	<input type="checkbox"/>
Crush:	<input type="checkbox"/>

3260 Encores
 Ferrarores

Check if required: Coring device un-extruded which requires extrusion and freezing within 48 hours.

Check if required: A plug of dirt in an empty vial -- place in the freezer within 48 hours for preservation

Sample	1	3	4	7	9	10											
Date	5/4																
Time	0900	0800	0845	1115	1240	1440											

Sample																	
Date																	
Time																	

Tests	Samples	Rapidly Expiring	24 TAT	48 TAT	72 TAT	Other:
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*Orthophosphate by methods 300.0 and 365.1 require field filtration within 15 minutes of collection.

TestAmerica Denver
Priority Form

Log-in Number: 69318

Project Manager: Donna

Client: Cooley

Time Zone:

Receiving	Initials: <u>MS</u>	Date/Time: <u>5/15/15 10:00</u>
Dept. Rep. / Analyst	<u>MS</u>	<u>051515 1914</u>

EDT/EST	CDT/CST	<input checked="" type="checkbox"/> MDT/MST	PDT/PST
Other:			

HT	Analysis	Mtn Volume needed (mL)	Method	Sample(s)	MS/MSD Required
Priority I	Chromium (VI) (24 h) [Circle Method]	100	3500-Cr B/D or 7196A		
	Hydrazine (Waters & Solids)	100	Denver		
	Biological Oxygen Demand	1000	5210 B		
	Carbonaceous BOD (cBOD)	1000	5210 B		
Priority II (48 h)	Cyanide Preservation	100	335.4 / 4500-CN		
	Color	100	2120 B		
	Nitrite by Spec (COC May Only list Nitrate)	100	353.2/4500-NO ₂ B		
	Orthophosphate by Spec.	50	365.1*		
	Nitrate by IC	50	300.0/9056	|	
	Nitrite by IC	50	300.0/9056	|	
	Orthophosphate by IC	50	300.0/9056*		
	Settleable Solids	1000	SM2540F		
Priority III	Turbidity	50	180.1		
	Dissolved Oxygen	100	4500-O ₂ G		
	Free Carbon Dioxide (CO ₂)	100	4500-CO ₂		
	Sulfite (SO ₃ ²⁻)	100	4500-SO ₃ B		
	pH (water)	100	4500-H B/9040/9045		
	pH (soil Hanford)	5 g	9045C		
	Ferrous Iron	100	3500-FE D		

Potentially Dissolved Metals (wait 8-96 hours to filter):

Preserve:

Filter:

Split:

Composite:

Crush:

3360 Encores	<input type="checkbox"/> Check if required: Coring device un-extruded which requires extrusion and freezing within 48 hours.
Tenacores	<input type="checkbox"/> Check if required: A plug of dirt in an empty vial -- place in the freezer within 48 hours for preservation

Sample	<u>1</u>																			
Date	<u>5/14</u>																			
Time	<u>14:00</u>																			

Sample																				
Date																				
Time																				

Tests	Samples	Rapidly Expiring	24 TAT	48 TAT	72 TAT	Other:
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*Orthophosphate by methods 300.0 and 365.1 require field filtration within 15 minutes of collection.

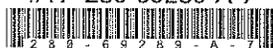
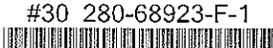
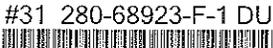
TestAmerica Laboratories
Worklist Report

Worklist Name: 051515cal Worklist Number: 35069
 Instrument Name: WC_IonChrom8 Chrom Method: Anions_IC8
 Injection Volume: 25.00 Units: ul
 Analysis Type: Semi VOA
 Batch Directory: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b
 Upload Directory: \\CORPTALSAPP06\280-DN-RawData\WetChem\IonChrom8\300.0_28D

Page 1652 of 1738

06/25/2015

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Dilution Factor
280-0035069-001 	# 1 RTC 	IC LCS_00261	RTC		1.000000	
280-0035069-002 	# 2 std L1 	IC Cal low_00085 IC CAL cl/so4_00047	IC	1	1.000000	
280-0035069-003 	# 3 std L2 	IC Cal low_00085 IC CAL cl/so4_00047	IC	2	1.000000	
280-0035069-004 	# 4 std L3 	IC Cal low_00085 IC CAL cl/so4_00047	IC	3	1.000000	
280-0035069-005 	# 5 std L4 	IC Cal low_00085 IC CAL cl/so4_00047	IC	4	1.000000	
280-0035069-006 	# 6 std L5 	IC Cal low_00085 IC CAL cl/so4_00047	IC	5	1.000000	
280-0035069-007 	# 7 std L6 	IC Cal low_00085 IC CAL cl/so4_00047	IC	6	1.000000	
280-0035069-008 	# 8 ICV 	IC CL ICV_00010 IC ICV 5_00076 IC SO4 ICV_00014	ICV		1.000000	
280-0035069-009 	# 9 ICB 		ICB		1.000000	
280-0035069-010 	#10 MRL 	IC Cal low_00085 IC CAL cl/so4_00047	MRL		1.000000	
280-0035069-011 	#11 LCS 	IC LCS_00261	LCS		1.000000	
280-0035069-012 	#12 LCSD 	IC LCS_00261	LCSD		1.000000	
280-0035069-013 	#13 MB 		MB		1.000000	
280-0035069-014 	#14 280-69289-C-1 		Client		1.000000	

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Dilution Factor
280-0035069-015 	#15 280-69289-C-3 		Client		1.000000	
280-0035069-016 	#16 280-69289-C-4 		Client		1.000000	
280-0035069-017 	#17 280-69289-A-7 		Client		1.000000	
280-0035069-018 	#18 280-69289-C-10 		Client		1.000000	
280-0035069-019 	#19 280-69318-C-1 		Client		2.000000	
280-0035069-020 	#20 280-69318-C-1 		Client		50.00	
280-0035069-021 	#21 280-68869-F-1 		Client		1.000000	
280-0035069-022 	#22 280-68869-F-1 DU 		DU		1.000000	
280-0035069-023 	#23 280-68869-F-1 MS 	ICMS/MSD WEEK_00320	MS		1.000000	
280-0035069-024 	#24 ccv 	IC LCS_00261	CCV		1.000000	
280-0035069-025 	#25 ccb 		CCB		1.000000	
280-0035069-026 	#26 280-68869-F-1 MSD 	ICMS/MSD WEEK_00320	MSD		1.000000	
280-0035069-027 	#27 280-68917-A-1 		Client		5.000000	
280-0035069-028 	#28 280-68917-A-1 		Client		50.00	
280-0035069-029 	#29 280-68703-A-1 		Client		1.000000	
280-0035069-030 	#30 280-68923-F-1 		Client		1.000000	
280-0035069-031 	#31 280-68923-F-1 DU 		DU		1.000000	
280-0035069-032 	#32 280-68923-F-1 MS 	ICMS/MSD WEEK_00320	MS		1.000000	

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Dilution Factor
280-0035069-033 	#33 280-68923-F-1 MSD 	ICMS/MSD WEEK_00320	MSD		1.000000	
280-0035069-034 	#34 280-68926-B-1 		Client		1.000000	
280-0035069-035 	#35 ccv 	IC LCS_00261	CCV		1.000000	
280-0035069-036 	#36 ccb 		CCB		1.000000	
280-0035069-037 	#37 280-67439-A-5 LOQV 	IC Cal low_00085 IC CAL cl/so4_00047	LOQV		1.000000	
280-0035069-038 	#38 280-67439-A-5 LOQV 	IC Cal low_00085 IC CAL cl/so4_00047	LOQV		1.000000	
280-0035069-039 	#39 280-67439-A-5 MDLV 	IC Cal low_00085 IC CAL cl/so4_00047	MDLV		1.000000	
280-0035069-040 	#40 280-67439-A-5 MDLV 	IC Cal low_00085 IC CAL cl/so4_00047	MDLV		1.000000	
280-0035069-041 	#41 280-67439-A-5 MDLV 	IC Cal low_00085 IC CAL cl/so4_00047	MDLV		1.000000	
280-0035069-042 	#42 280-67439-A-5 MDLV 	IC Cal low_00085 IC CAL cl/so4_00047	MDLV		1.000000	
280-0035069-043 	#43 ccv 	IC LCS_00261	CCV		1.000000	
280-0035069-044 	#44 ccb 		CCB		1.000000	
280-0035069-045 	#45 280-69289-C-3 		Client		10.00	
280-0035069-046 	#46 280-69289-C-4 		Client		10.00	
280-0035069-047 	#47 280-69289-A-7 		Client		10.00	
280-0035069-048 	#48 280-69289-C-10 		Client		10.00	
280-0035069-049 	#49 ccv 	IC LCS_00261	CCV		1.000000	
280-0035069-050 	#50 ccb 		CCB		1.000000	

TestAmerica Denver
Area/Height Percent Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\02.0000.d
 Lims ID: std L1
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 15-May-2015 11:49:00 ALS Bottle#: 0 Worklist Smp#: 2
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035069-002 Temporary sequence for manual data acquisition
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\Anions_IC8.m
 Limit Group: Wet - Anions 28D
 Last Update: 16-May-2015 08:19:02 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Process Host: XAWRK024

Detector: 0005
 Number of peaks found: 7

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.059	1.922	2.627	5516525	10.38	4.37		1 Fluoride
3.415	3.189	3.735	15903839	29.93	5.48		2 Chloride
3.972	3.742	4.665	7803578	14.68	6.32		3 Nitrite as N
6.445	6.232	6.659	1015628	1.91	8.74		4 Bromide
7.135	6.772	7.594	7834666	14.74	10.73		5 Nitrate as N
11.519	11.382	11.645	10388789	19.55	4.54		6 Sulfate
12.772	12.679	12.919	4678733	8.80	5.33		7 Orthophosphate as P
			53141758			Totals	

Total Unknown Area% = 0.00

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\02.0000.d
 Lims ID: std L1
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 15-May-2015 11:49:00 ALS Bottle#: 0 Worklist Smp#: 2
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035069-002 Temporary sequence for manual data acquisition
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\Anions_IC8.m
 Limit Group: Wet - Anions 28D
 Last Update: 16-May-2015 08:19:02 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK024

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.059	2.055	0.004	5516525	0.2000	0.1807	
2 Chloride	3.415	3.385	0.030	15903839	1.00	1.02	
3 Nitrite as N	3.972	3.949	0.023	7803578	0.2000	0.1667	
4 Bromide	6.445	6.409	0.036	1015628	0.2000	0.2100	
5 Nitrate as N	7.135	6.949	0.186	7834666	0.2000	0.2004	
6 Sulfate	11.519	11.305	0.214	10388789	1.00	0.8596	
7 Orthophosphate as P	12.772	12.725	0.047	4678733	0.2000	0.1339	

Reagents:

IC Cal low_00085 Amount Added: 0.02 Units: mL
 IC CAL cl/so4_00047 Amount Added: 0.02 Units: mL

TestAmerica Denver

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\02.0000.d

Injection Date: 15-May-2015 11:49:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: std L1

Worklist Smp#: 2

Client ID:

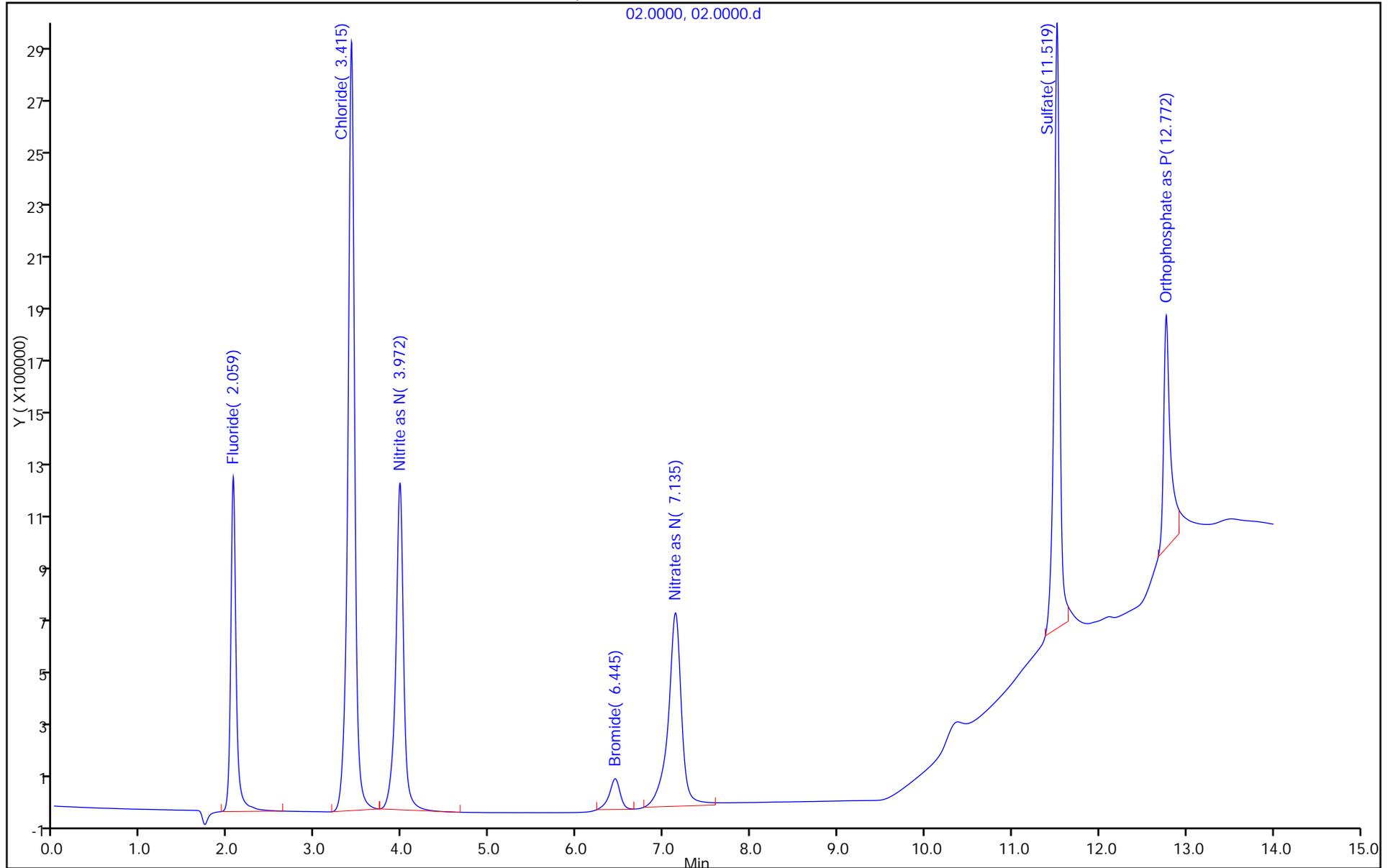
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions 28D



TestAmerica Denver
Area/Height Percent Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\03.0000.d
 Lims ID: std L2
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 15-May-2015 12:06:00 ALS Bottle#: 0 Worklist Smp#: 3
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035069-003 Temporary sequence for manual data acquisition
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\Anions_IC8.m
 Limit Group: Wet - Anions 28D
 Last Update: 16-May-2015 08:19:03 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Process Host: XAWRK024

Detector: 0005
 Number of peaks found: 7

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.067	1.842	3.108	14099264	9.58	4.49		1 Fluoride
3.425	3.167	3.733	41067660	27.90	5.54		2 Chloride
3.983	3.733	4.825	20062651	13.63	6.57		3 Nitrite as N
6.450	6.042	6.675	3108069	2.11	9.52		4 Bromide
7.125	6.675	7.867	21191384	14.40	10.86		5 Nitrate as N
11.525	10.958	11.850	34067940	23.14	5.38		6 Sulfate
12.775	12.467	13.100	13604658	9.24	6.77		7 Orthophosphate as P
			147201626			Totals	

Total Unknown Area% = 0.00

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\03.0000.d
 Lims ID: std L2
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 15-May-2015 12:06:00 ALS Bottle#: 0 Worklist Smp#: 3
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035069-003 Temporary sequence for manual data acquisition
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\Anions_IC8.m
 Limit Group: Wet - Anions 28D
 Last Update: 16-May-2015 08:19:03 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK024

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.067	2.055	0.012	14099264	0.5000	0.5101	
2 Chloride	3.425	3.385	0.040	41067660	2.50	2.47	
3 Nitrite as N	3.983	3.949	0.034	20062651	0.5000	0.5211	
4 Bromide	6.450	6.409	0.041	3108069	0.5000	0.4960	
5 Nitrate as N	7.125	6.949	0.176	21191384	0.5000	0.5006	
6 Sulfate	11.525	11.305	0.220	34067940	2.50	2.75	
7 Orthophosphate as P	12.775	12.725	0.050	13604658	0.5000	0.6167	

Reagents:

IC Cal low_00085 Amount Added: 0.05 Units: mL
 IC CAL cl/so4_00047 Amount Added: 0.05 Units: mL

TestAmerica Denver

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\03.0000.d

Injection Date: 15-May-2015 12:06:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: std L2

Worklist Smp#: 3

Client ID:

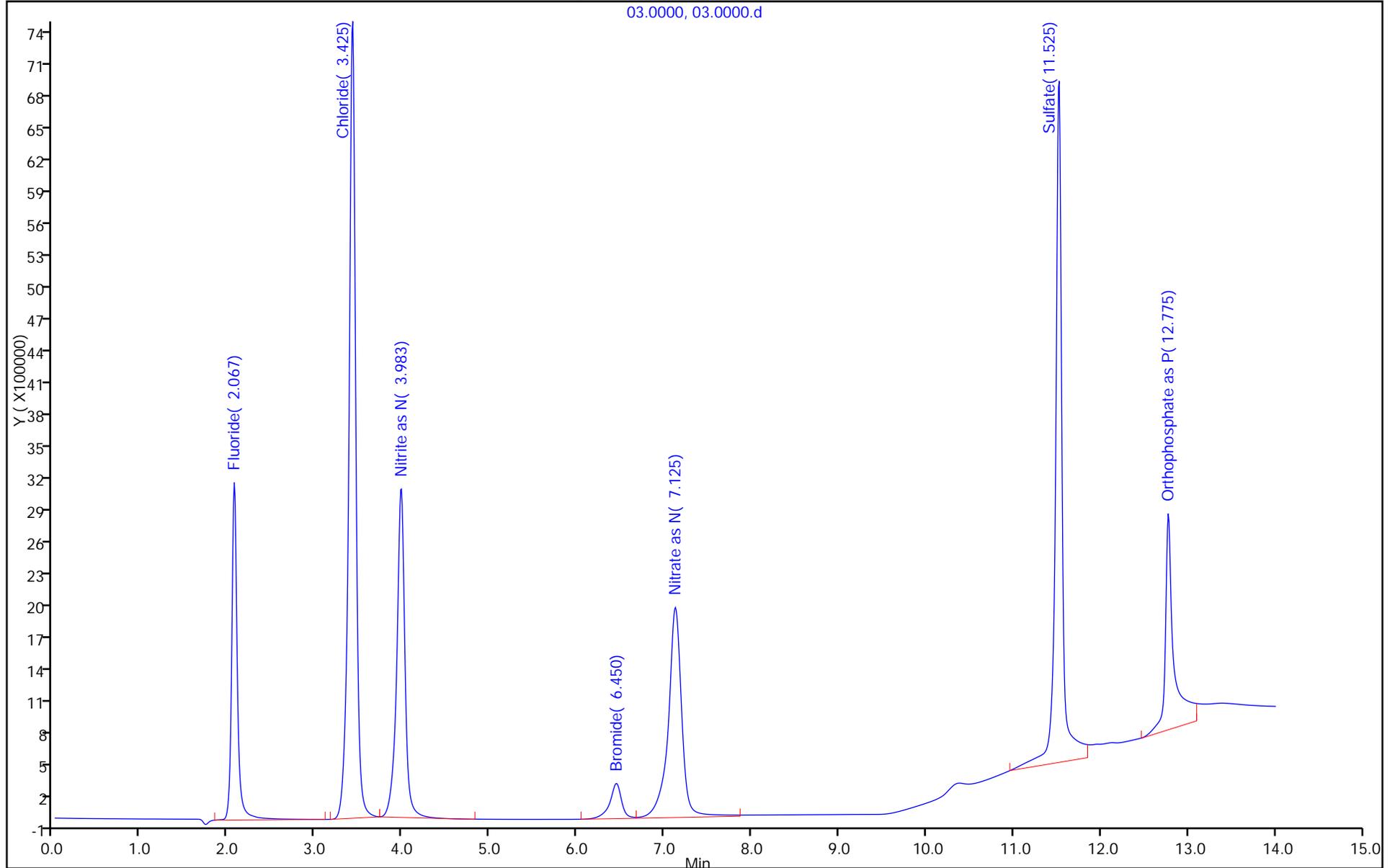
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions 28D



TestAmerica Denver
Area/Height Percent Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\04.0000.d
 Lims ID: std L3
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 15-May-2015 12:23:00 ALS Bottle#: 0 Worklist Smp#: 4
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035069-004 Temporary sequence for manual data acquisition
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\Anions_IC8.m
 Limit Group: Wet - Anions 28D
 Last Update: 16-May-2015 08:19:03 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Process Host: XAWRK024

Detector: 0005
 Number of peaks found: 7

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.075	1.842	3.125	28366105	9.80	4.61		1 Fluoride
3.425	3.167	3.733	83624189	28.89	5.57		2 Chloride
3.975	3.733	4.892	40176586	13.88	6.84		3 Nitrite as N
6.442	6.017	6.667	6502013	2.25	9.25		4 Bromide
7.092	6.667	8.092	43221199	14.93	10.94		5 Nitrate as N
11.508	10.958	11.858	64794304	22.38	5.14		6 Sulfate
12.767	12.475	13.142	22791117	7.87	5.67		7 Orthophosphate as P
			289475513			Totals	

Total Unknown Area% = 0.00

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\04.0000.d
 Lims ID: std L3
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 15-May-2015 12:23:00 ALS Bottle#: 0 Worklist Smp#: 4
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035069-004 Temporary sequence for manual data acquisition
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\Anions_IC8.m
 Limit Group: Wet - Anions 28D
 Last Update: 16-May-2015 08:19:03 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK024

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.075	2.055	0.020	28366105	1.00	1.06	
2 Chloride	3.425	3.385	0.040	83624189	5.00	4.93	
3 Nitrite as N	3.975	3.949	0.026	40176586	1.00	1.10	
4 Bromide	6.442	6.409	0.033	6502013	1.00	0.9598	
5 Nitrate as N	7.092	6.949	0.143	43221199	1.00	1.00	
6 Sulfate	11.508	11.305	0.203	64794304	5.00	5.19	
7 Orthophosphate as P	12.767	12.725	0.042	22791117	1.00	1.11	

Reagents:

IC Cal low_00085 Amount Added: 0.10 Units: mL
 IC CAL cl/so4_00047 Amount Added: 0.10 Units: mL

TestAmerica Denver

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\04.0000.d

Injection Date: 15-May-2015 12:23:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: std L3

Worklist Smp#: 4

Client ID:

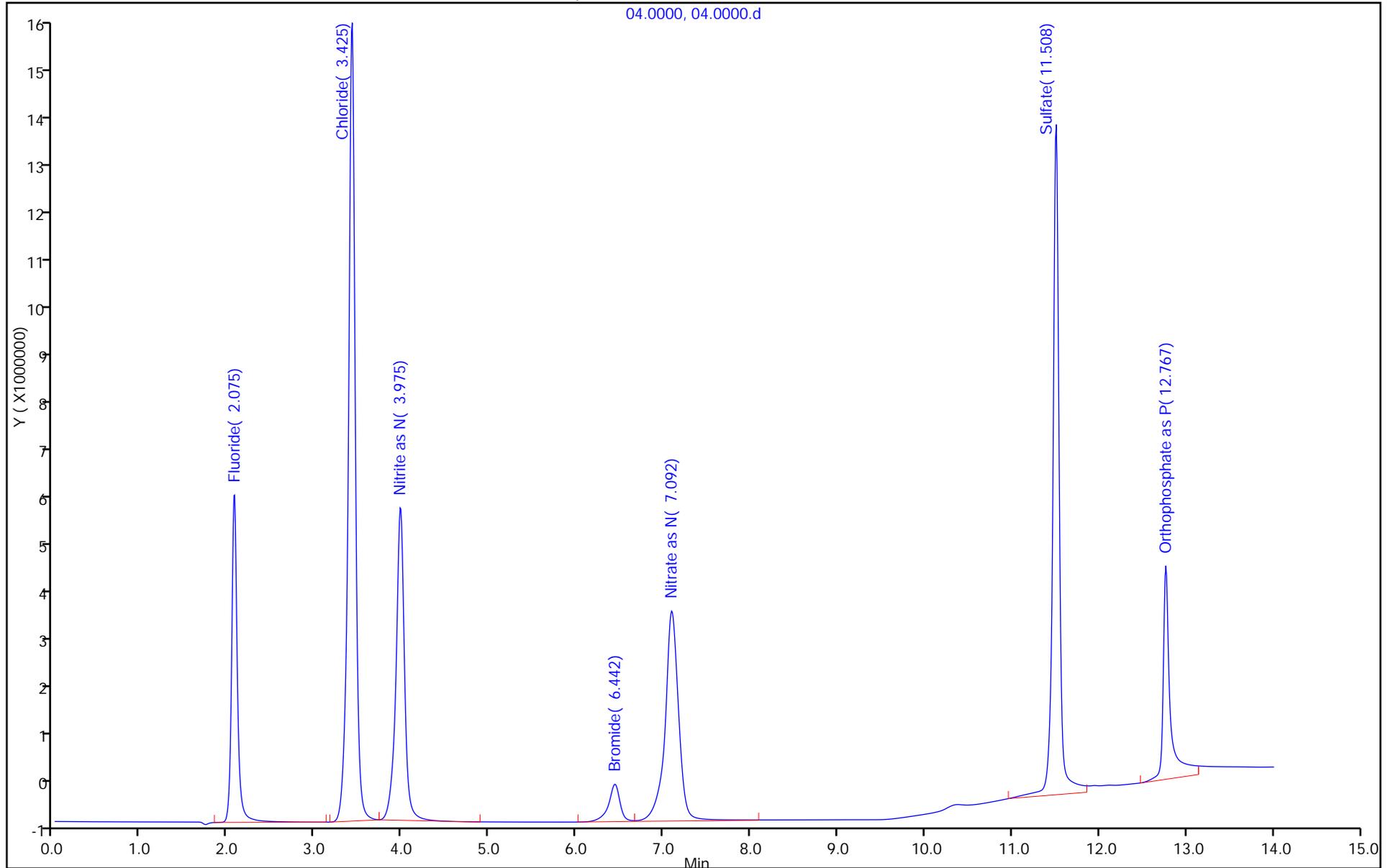
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions 28D



TestAmerica Denver
Area/Height Percent Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\05.0000.d
 Lims ID: std L4
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 15-May-2015 12:39:00 ALS Bottle#: 0 Worklist Smp#: 5
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035069-005 Temporary sequence for manual data acquisition
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\Anions_IC8.m
 Limit Group: Wet - Anions 28D
 Last Update: 16-May-2015 08:19:04 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Process Host: XAWRK024

Detector: 0005
 Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.075	1.842	3.117	109149818	4.67	5.03		1 Fluoride
3.400	3.117	3.733	1040228832	44.55	5.82		2 Chloride
3.967	3.733	4.483	147475506	6.32	7.69		3 Nitrite as N
6.400	5.975	6.617	28421174	1.22	9.00		4 Bromide
6.958	6.617	8.500	176878434	7.58	12.93		5 Nitrate as N
11.383	10.983	11.892	756264194	32.39	8.49		6 Sulfate
11.942	11.892	12.008	91157	0.00	3.40		
12.742	12.458	13.242	76386303	3.27	5.11		7 Orthophosphate as P
			2334895418			Totals	

Total Unknown Area% = 0.00

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
 IC, ICal Standard Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\05.0000.d
 Lims ID: std L4
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 15-May-2015 12:39:00 ALS Bottle#: 0 Worklist Smp#: 5
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035069-005 Temporary sequence for manual data acquisition
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\Anions_IC8.m
 Limit Group: Wet - Anions 28D
 Last Update: 16-May-2015 08:19:04 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK024
 Start Cal Date: 15-May-2015 11:49:00
 End Cal Date: 15-May-2015 13:13:00

Compound	Standard RRF/Amt	DLT RT	Ccal Amt	Ccal RF	%D	Max. %D	%Rec
1 Fluoride	4.00	0.0	4.16	27287455	4.0	0	104
2 Chloride	60.0	0.0	60.2	17337147	0.4	0	100
3 Nitrite as N	4.00	0.0	4.20	36868877	5.1	0	105
4 Bromide	4.00	0.0	3.96	7105294	-1.1	0	99
5 Nitrate as N	4.00	0.0	4.00	44219609	-0.01	0	100
6 Sulfate	60.0	0.0	60.3	12604403	0.5	0	100
7 Orthophosphate as P	4.00	0.0	4.01	19096576	0.3	0	100

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\05.0000.d
 Lims ID: std L4
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 15-May-2015 12:39:00 ALS Bottle#: 0 Worklist Smp#: 5
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035069-005 Temporary sequence for manual data acquisition
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\Anions_IC8.m
 Limit Group: Wet - Anions 28D
 Last Update: 16-May-2015 08:19:04 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK024

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.075	2.075	0.000	109149818	4.00	4.16	
2 Chloride	3.400	3.400	0.000	1040228832	60.0	60.2	
3 Nitrite as N	3.967	3.967	0.000	147475506	4.00	4.20	
4 Bromide	6.400	6.400	0.000	28421174	4.00	3.96	
5 Nitrate as N	6.958	6.958	0.000	176878434	4.00	4.00	
6 Sulfate	11.383	11.383	0.000	756264194	60.0	60.3	
7 Orthophosphate as P	12.742	12.742	0.000	76386303	4.00	4.01	

Reagents:

IC Cal low_00085 Amount Added: 0.40 Units: mL
 IC CAL cl/so4_00047 Amount Added: 1.20 Units: mL

TestAmerica Denver

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\05.0000.d

Injection Date: 15-May-2015 12:39:00 Instrument ID: WC_IonChrom8

Lims ID: std L4

Operator ID:

Worklist Smp#: 5

Client ID:

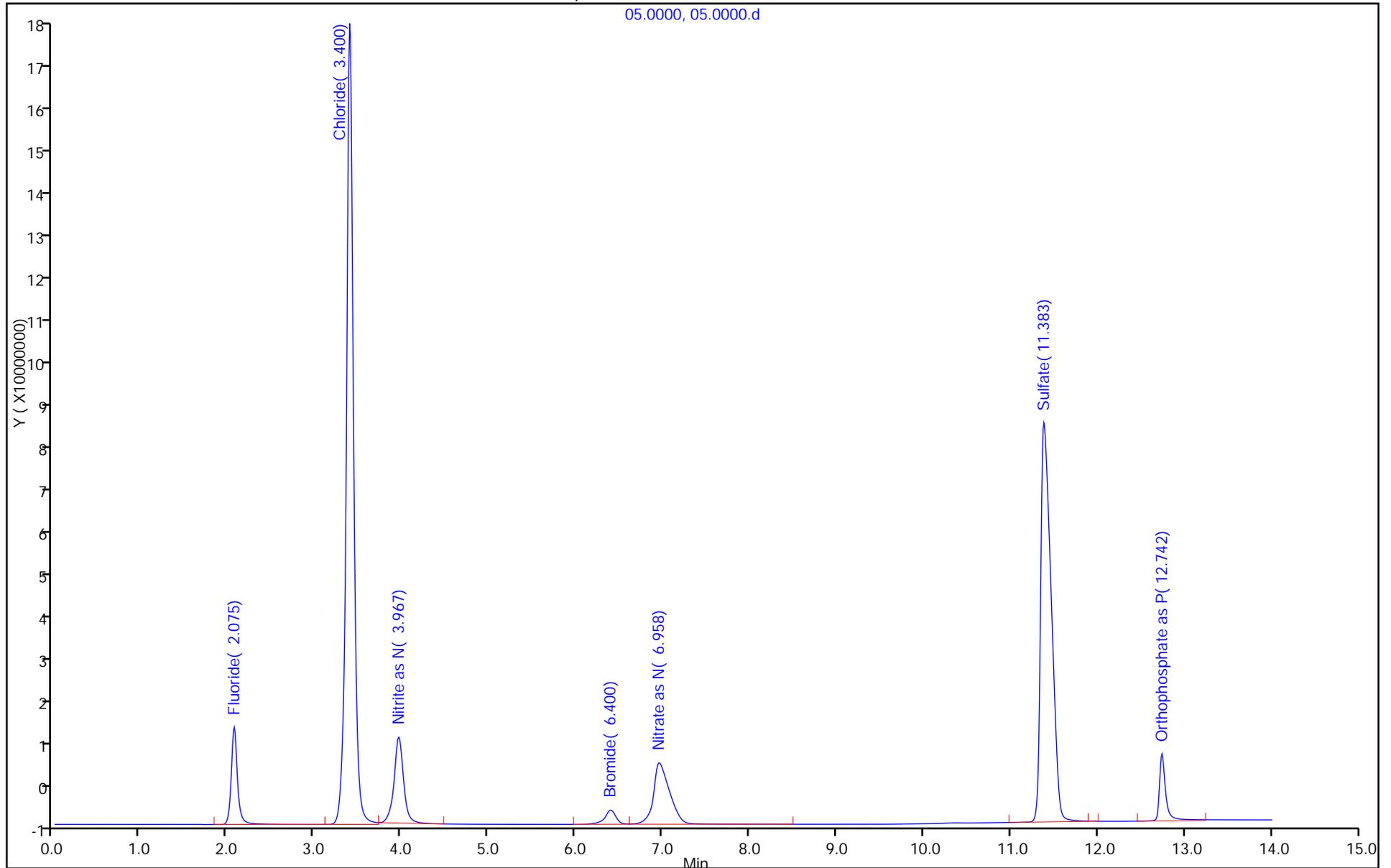
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions 28D



TestAmerica Denver
Area/Height Percent Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\06.0000.d
 Lims ID: std L5
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 15-May-2015 12:56:00 ALS Bottle#: 0 Worklist Smp#: 6
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035069-006 Temporary sequence for manual data acquisition
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\Anions_IC8.m
 Limit Group: Wet - Anions 28D
 Last Update: 16-May-2015 08:19:05 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Process Host: XAWRK024

Detector: 0005
 Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.075	1.842	3.108	208914369	4.49	5.55		1 Fluoride
3.392	3.108	3.725	2084730680	44.84	5.87		2 Chloride
3.950	3.725	4.508	279073047	6.00	8.51		3 Nitrite as N
6.350	5.950	6.558	58374887	1.26	9.01		4 Bromide
6.842	6.558	8.192	355821573	7.65	15.33		5 Nitrate as N
11.300	10.992	11.883	1513081631	32.55	11.32		6 Sulfate
11.933	11.883	12.008	201186	0.00	3.67		
12.717	12.467	13.250	148624363	3.20	5.40		7 Orthophosphate as P
			4648821736			Totals	

Total Unknown Area% = 0.00

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
 Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\06.0000.d
 Lims ID: std L5
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 15-May-2015 12:56:00 ALS Bottle#: 0 Worklist Smp#: 6
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035069-006 Temporary sequence for manual data acquisition
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\Anions_IC8.m
 Limit Group: Wet - Anions 28D
 Last Update: 16-May-2015 08:19:05 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK024

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.075	2.075	0.000	208914369	8.00	7.99	
2 Chloride	3.392	3.400	-0.008	2084730680	120.0	120.6	
3 Nitrite as N	3.950	3.967	-0.017	279073047	8.00	8.01	
4 Bromide	6.350	6.400	-0.050	58374887	8.00	8.05	
5 Nitrate as N	6.842	6.958	-0.116	355821573	8.00	8.02	
6 Sulfate	11.300	11.383	-0.083	1513081631	120.0	120.6	
7 Orthophosphate as P	12.717	12.742	-0.025	148624363	8.00	7.92	

Reagents:

IC Cal low_00085 Amount Added: 0.80 Units: mL
 IC CAL cl/so4_00047 Amount Added: 2.40 Units: mL

TestAmerica Denver

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\06.0000.d

Injection Date: 15-May-2015 12:56:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: std L5

Worklist Smp#: 6

Client ID:

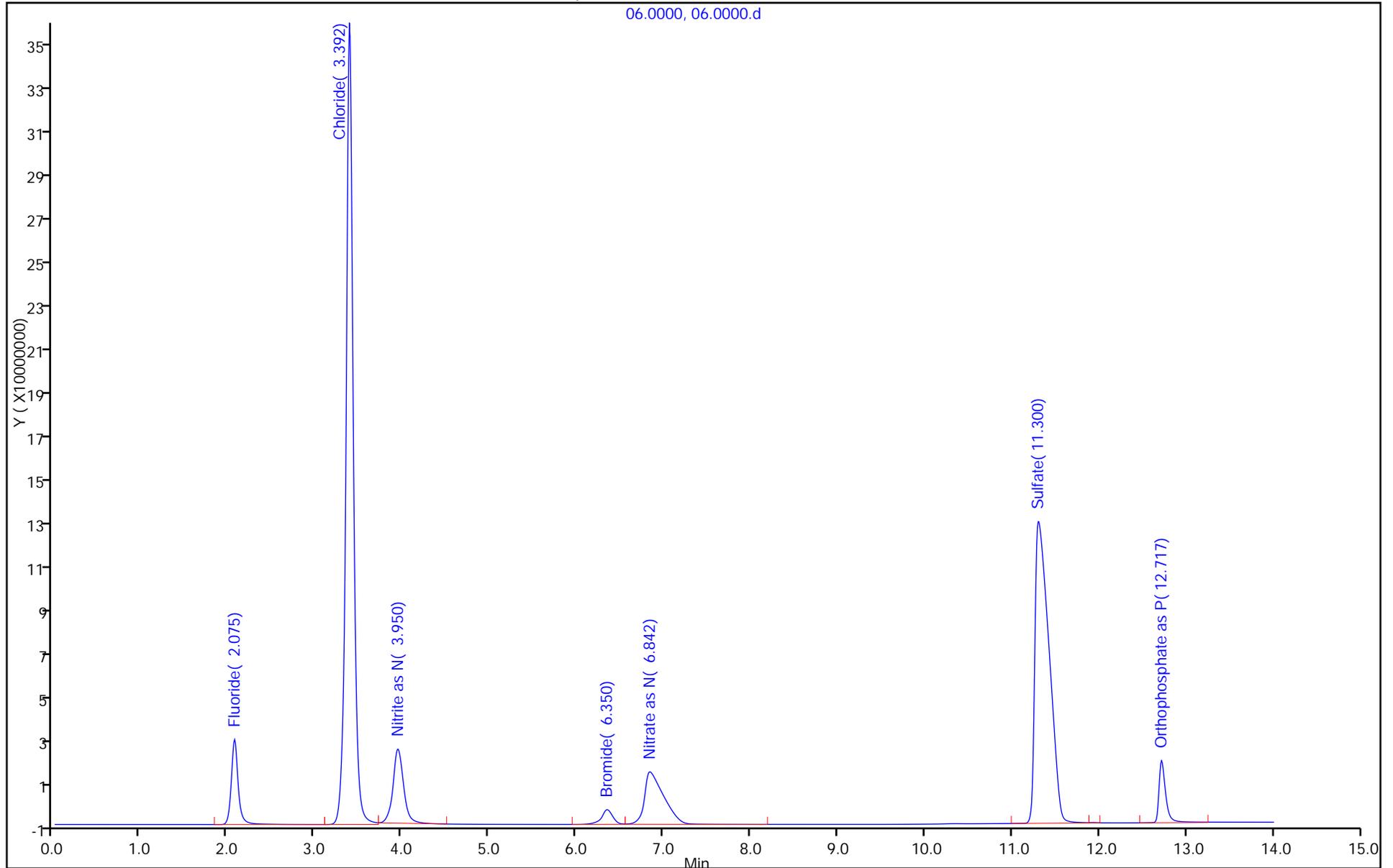
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions 28D



TestAmerica Denver
Area/Height Percent Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Lims ID: std L6
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 15-May-2015 13:13:00 ALS Bottle#: 0 Worklist Smp#: 7
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035069-007 Temporary sequence for manual data acquisition
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\Anions_IC8.m
 Limit Group: Wet - Anions 28D
 Last Update: 16-May-2015 08:19:05 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Process Host: XAWRK024

Detector: 0005
 Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.067	1.883	3.092	256330695	3.54	6.01		1 Fluoride
3.392	3.100	3.725	3444134963	47.60	6.22		2 Chloride
3.942	3.725	4.442	337561564	4.67	8.76		3 Nitrite as N
6.317	5.933	6.525	72871757	1.01	9.04		4 Bromide
6.783	6.525	8.075	443100116	6.12	16.28		5 Nitrate as N
11.225	10.983	11.875	2496451164	34.50	14.37		6 Sulfate
11.925	11.875	12.008	245695	0.00	4.01		
12.717	12.475	13.275	185231054	2.56	5.66		7 Orthophosphate as P
			7235927008			Totals	

Total Unknown Area% = 0.00

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Lims ID: std L6
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 15-May-2015 13:13:00 ALS Bottle#: 0 Worklist Smp#: 7
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035069-007 Temporary sequence for manual data acquisition
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\Anions_IC8.m
 Limit Group: Wet - Anions 28D
 Last Update: 16-May-2015 08:19:05 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK024

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.067	2.075	-0.008	256330695	10.0	9.81	
2 Chloride	3.392	3.400	-0.008	3444134963	200.0	199.2	
3 Nitrite as N	3.942	3.967	-0.025	337561564	10.0	9.70	
4 Bromide	6.317	6.400	-0.083	72871757	10.0	10.0	
5 Nitrate as N	6.783	6.958	-0.175	443100116	10.0	9.98	
6 Sulfate	11.225	11.383	-0.158	2496451164	200.0	198.9	
7 Orthophosphate as P	12.717	12.742	-0.025	185231054	10.0	9.90	

Reagents:

IC Cal low_00085 Amount Added: 1.00 Units: mL
 IC CAL cl/so4_00047 Amount Added: 4.00 Units: mL

TestAmerica Denver

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d

Injection Date: 15-May-2015 13:13:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: std L6

Worklist Smp#: 7

Client ID:

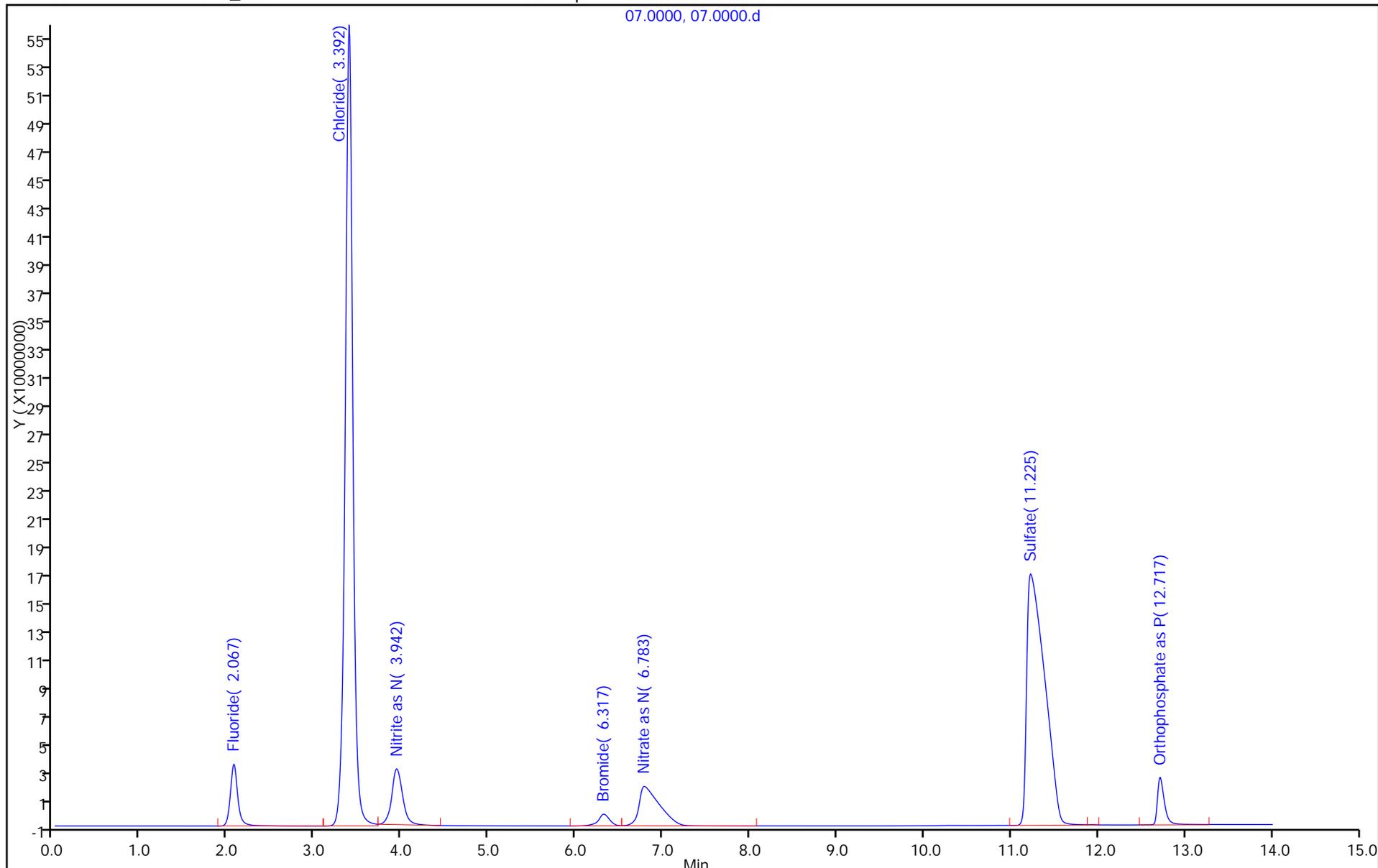
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions 28D



TestAmerica Denver
Area/Height Percent Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\08.0000.d
 Lims ID: ICV
 Client ID:
 Sample Type: ICV
 Inject. Date: 05-Jun-2015 09:57:00 ALS Bottle#: 0 Worklist Smp#: 1
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-001 Temporary sequence for manual data acquisition
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist:

Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions 28D
 Last Update: 08-Jun-2015 14:27:19 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Process Host: XAWRK022

First Level Reviewer: bensona Date: 05-Jun-2015 11:26:25

Detector: 0005

Number of peaks found: 7

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.033	1.842	3.025	103288281	3.49	5.46		1 Fluoride
3.325	3.025	3.658	1399452566	47.23	6.44		2 Chloride
3.875	3.658	4.333	143700491	4.85	8.01		3 Nitrite as N
6.267	5.858	6.475	28428157	0.96	9.86		4 Bromide
6.808	6.475	7.783	178320429	6.02	13.88		5 Nitrate as N
11.225	10.975	11.958	1029293087	34.74	10.17		6 Sulfate
12.683	12.475	13.392	80306543	2.71	5.74		7 Orthophosphate as P
			2962789554			Totals	

Total Unknown Area% = 0.00

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

Data Review Checklist – Calibration Methods

Method(s): 300/9056/9056A	Instrument: ICS	Run Date: 06/05/15	Analyst Initials: TP/AB	SOP #: WC-0020			
Prep Batch(s): N/A		Analytical Batch: 280541 / 280542					
A. Calibration/Instrument Run QC				Yes	No	N/A	2nd
Minimum of five standards in ICAL or as specified in SOP?				✓			
Correlation coefficient ≥ 0.995 ?				✓			
Second-source ICV analyzed, and recovery within acceptance limits?				✓			/
ICB analyzed immediately after the ICV & results < the RL				✓			/
CCV analyzed after every ten samples & recovery within acceptance limits?				✓			/
CCB analyzed after every CCV & results < RL?				✓			/
Absolute value of the x intercept is $< \pm \frac{1}{2}$ the RL?				✓			/
Elution order verified? (anions)				✓			/
Were manual integrations performed correctly and properly documented? (anions)				✓			/
B. Sample Results							
All samples greater than highest calibration standard diluted and reanalyzed?				✓			/
Do associated RLs/MDLs reflect dilutions or limited sample volume?				✓			/
All reported results bracketed by in control CCV results?				✓			/
Sample analyses done within holding time? If no, create HTV NCM. NCM #				✓			/
Are any results over calibration range? If reported, are results E flagged?					✓		/
Are J values the result of over dilution?					✓		/
Client requirements reviewed and met?				✓			/
Were data manually transcribed from instrument printouts or benchsheets into TALS verified 100% including dilution factors, significant figures and correct units? (If Applicable)				✓			/
Do the prep and analysis dates in TALS reflect the actual dates?				✓			/
Were peak assignments verified? (anions)				✓			/
Were manual integrations performed correctly and properly documented? (anions)				✓			/
C. Preparation/Matrix QC							
Method blank $< \frac{1}{2}$ RL or all reported samples $> 10x$ blank have NCM? - (COD, Phenol MB <RL)				✓			/
Method blank $< \frac{1}{2}$ RL or NCM provided? - (COD, Phenol MB <RL)				✓			/
LCS/LCSD run for batch and within QC limits?				✓			/
MS/MSD run at required frequency? Verify that MS/MSD failures are matrix issues and not analytical issues such as not spiking or not applying the appropriate dilution.				✓			/
DUP run at required frequency?				✓			/
Menu or Tab	Check			1 st	2 nd		
Analyst Desktop	Create or open batch						
View Batch Info	Confirm all fields are populated	✓			/		
	Edit Analyst ID as is appropriate	✓			/		
Run log	Verify the correct samples and QC are run at the correct frequency (i.e., 10 samples per CCV)	✓			/		
Sample List	Confirm all Graphics have been uploaded (IC only)	✓			/		
	In edit mode, If prompted to process samples, select "Yes"	✓			/		
	Confirm samples are identified (Blue P Icon)	✓			/		
	Confirm correct analysis date and time are listed	✓			/		
	Confirm samples have the correct dilution factors. TOC – Check for manual dilutions not entered into instrument run log, Auto dilutions (Aut. Dil.) and Injections volume (Inj. Vol.)	✓			/		
	Confirm samples have the correct method chain assigned	✓			/		
	Confirm that solid samples have the % moisture listed			N/A	N/A		
Worksheet	Populate all appropriate fields in the worksheet. Initial Amount, Final Amount, pH, etc.	✓			/		
Reagents	Confirm reagents are correct and properly associated with QC samples. Confirm that reagent amounts are correct. If reagents are new, verify that the correct COA has been attached to the source standard	✓			/		
Results	Check for special instructions (Login, Method and Sample comments) - red notebook icon	✓			/		
	Check for any QC failures	✓			/		
	Set status for samples based on QC and sample results info (i.e., set to primary analysis with passing QC or reject samples without passing QC or samples that are over-range).	✓			/		
	Address any results that are reported without passing QC with an NCM	✓			/		
QC Links	Confirm QC links are correct	✓			/		
Hist. Data Check	Check historical data. Print charts for outliers. Take corrective action as is appropriate	✓			/		
Sample List	Re-calculate data and set to appropriate review status (1 st or 2 nd level review)	✓			/		
	Scan and attach raw data & save batch	✓			/		
Analyst: TP	Date: 06/08/15	2nd Level Reviewer: Phuyr Tripan	Date: 06/09/2015				

L:\Admin\QA\Edit\FORMS\Data Review\Wet Chem\Calib Curve Checklist 12-31-14 Rev 5.doc

IC Instrument Information

280541/42

WL: 35736 Inst ID: 8 Analysis Date: 6/5/15 Analyst: AM
 # 280621

Rush	Job No.	Samples	Anions	QC Req	HT Exp
9056A	✓ <input type="checkbox"/> <u>70279</u> ✓	<u>1</u>	F <u>Cl</u> <u>NO2</u> Br <u>NO3</u> PO4 <u>SO4</u>	<u>MS/D</u> 6	<u>6-6</u>
300	✓ <input type="checkbox"/> <u>70286</u>	<u>8</u>	F <u>Cl</u> <u>NO2</u> Br <u>NO3</u> PO4 <u>SO4</u>	MS/D	<u>6/6</u>
300	✓ <input type="checkbox"/> <u>70078</u>	<u>6</u>	F <u>Cl</u> NO2 Br NO3 PO4 <u>SO4</u>	<u>MS/D</u> -4	_____
300	✓ <input type="checkbox"/> <u>70102</u>	<u>2</u>	F <u>Cl</u> NO2 Br NO3 PO4 SO4	MS/D	_____
	<input type="checkbox"/> <u>RSN</u> <u>015/15</u>	_____	F Cl NO2 Br NO3 PO4 SO4	MS/D	_____
	<input type="checkbox"/> _____	_____	F Cl NO2 Br NO3 PO4 SO4	MS/D	_____
9058	<input type="checkbox"/> <u>67440</u>	<u>Soil</u>	<u>F Cl NO2 Br NO3 PO4 SO4</u>	<u>MS/D</u>	<u>LOQV & MDLV</u>
	<input type="checkbox"/> _____	_____	F Cl NO2 Br NO3 PO4 SO4	MS/D	_____
	<input type="checkbox"/> _____	_____	F Cl NO2 Br NO3 PO4 SO4	MS/D	_____
	<input type="checkbox"/> _____	_____	F Cl NO2 Br NO3 PO4 SO4	MS/D	_____
	<input type="checkbox"/> _____	_____	F Cl NO2 Br NO3 PO4 SO4	MS/D	_____
	<input type="checkbox"/> _____	_____	F Cl NO2 Br NO3 PO4 SO4	MS/D	_____
	<input type="checkbox"/> _____	_____	F Cl NO2 Br NO3 PO4 SO4	MS/D	_____
	<input type="checkbox"/> _____	_____	F Cl NO2 Br NO3 PO4 SO4	MS/D	_____

Dilutions

Job No.	Samples	Anions	Dilution	Reason
<u>70286</u>	<u>1, 2, 3, 4, 8</u>	F Cl NO2 Br NO3 PO4 <u>SO4</u>	<u>50x</u>	<u>high</u>
_____	_____	F Cl NO2 Br NO3 PO4 SO4	_____	_____
_____	_____	F Cl NO2 Br NO3 PO4 SO4	_____	_____
_____	_____	F Cl NO2 Br NO3 PO4 SO4	_____	_____
_____	_____	F Cl NO2 Br NO3 PO4 SO4	_____	_____
_____	_____	F Cl NO2 Br NO3 PO4 SO4	_____	_____
_____	_____	F Cl NO2 Br NO3 PO4 SO4	_____	_____
_____	_____	F Cl NO2 Br NO3 PO4 SO4	_____	_____
_____	_____	F Cl NO2 Br NO3 PO4 SO4	_____	_____

33
29

Phonix
06/02/2015

Data Review Checklist – Calibration Methods

Method(s): 300/9056/9056A		Instrument: ICS	Run Date: 06/05/15	Analyst Initials: TP/AB	SOP #: WC-0020
Prep Batch(s): N/A			Analytical Batch: 280541 | 280542		
A. Calibration/Instrument Run QC					
Minimum of five standards in ICAL or as specified in SOP?					Yes
Correlation coefficient ≥ 0.995 ?					No
Second-source ICV analyzed, and recovery within acceptance limits?					N/A
ICB analyzed immediately after the ICV & results < the RL					2nd
CCV analyzed after every ten samples & recovery within acceptance limits?					
CCB analyzed after every CCV & results < RL?					
Absolute value of the x intercept is < $\pm 1/2$ the RL?					
Elution order verified? (anions)					
Were manual integrations performed correctly and properly documented? (anions)					
B. Sample Results					
All samples greater than highest calibration standard diluted and reanalyzed?					
Do associated RLs/MDLs reflect dilutions or limited sample volume?					
All reported results bracketed by in control CCV results?					
Sample analyses done within holding time? If no, create HTV NCM. NCM #					
Are any results over calibration range? If reported, are results E flagged?					
Are J values the result of over dilution?					
Client requirements reviewed and met?					
Were data manually transcribed from instrument printouts or benchsheets into TALS verified 100% including dilution factors, significant figures and correct units? (If Applicable)					
Do the prep and analysis dates in TALS reflect the actual dates?					
Were peak assignments verified? (anions)					
Were manual integrations performed correctly and properly documented? (anions)					
C. Preparation/Matrix QC					
Method blank < $1/2$ RL or all reported samples > 10x blank have NCM? - (COD, Phenol MB <RL)					
Method blank < $1/2$ RL or NCM provided? - (COD, Phenol MB <RL)					
LCS/LCSD run for batch and within QC limits?					
MS/MSD run at required frequency? Verify that MS/MSD failures are matrix issues and not analytical issues such as not spiking or not applying the appropriate dilution.					
DUP run at required frequency?					
Menu or Tab	Check	1st	2nd		
Analyst Desktop	Create or open batch				
View Batch Info	Confirm all fields are populated				
	Edit Analyst ID as is appropriate				
Run log	Verify the correct samples and QC are run at the correct frequency (i.e., 10 samples per CCV)				
Sample List	Confirm all Graphics have been uploaded (IC only)				
	In edit mode, If prompted to process samples, select "Yes"				
	Confirm samples are identified (Blue P Icon)				
	Confirm correct analysis date and time are listed				
	Confirm samples have the correct dilution factors. TOC – Check for manual dilutions not entered into instrument run log, Auto dilutions (Aut. Dil.) and Injections volume (Inj. Vol.)				
	Confirm samples have the correct method chain assigned				
Worksheet	Confirm that solid samples have the % moisture listed			N/A	
Reagents	Populate all appropriate fields in the worksheet. Initial Amount, Final Amount, pH, etc.				
Results	Confirm reagents are correct and properly associated with QC samples. Confirm that reagent amounts are correct. If reagents are new, verify that the correct COA has been attached to the source standard				
	Check for special instructions (Login, Method and Sample comments) - red notebook icon				
QC Links	Check for any QC failures				
	Set status for samples based on QC and sample results info (i.e., set to primary analysis with passing QC or reject samples without passing QC or samples that are over-range).				
	Address any results that are reported without passing QC with an NCM				
Hist. Data Check	Confirm QC links are correct				
Sample List	Check historical data. Print charts for outliers. Take corrective action as is appropriate				
	Re-calculate data and set to appropriate review status (1 st or 2 nd level review)				
	Scan and attach raw data & save batch				
Analyst: TP	Date: 06/08/15	2nd Level Reviewer:		Date:	

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\08.0000.d
 Lims ID: ICV
 Client ID:
 Sample Type: ICV
 Inject. Date: 05-Jun-2015 09:57:00 ALS Bottle#: 0 Worklist Smp#: 1
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-001 Temporary sequence for manual data acquisition
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist:

Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions 28D
 Last Update: 08-Jun-2015 14:27:19 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d

Column 1 : Det: 0005
 Process Host: XAWRK022

First Level Reviewer: benzona Date: 05-Jun-2015 11:26:25

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.033	2.033	0.000	103288281	4.00	3.93	
2 Chloride	3.325	3.325	0.000	1399452566	80.0	81.0	
3 Nitrite as N	3.875	3.875	0.000	143700491	4.00	4.09	
4 Bromide	6.267	6.267	0.000	28428157	4.00	3.96	
5 Nitrate as N	6.808	6.808	0.000	178320429	4.00	4.03	
6 Sulfate	11.225	11.225	0.000	1029293087	80.0	82.0	
7 Orthophosphate as P	12.683	12.683	0.000	80306543	4.00	4.23	

Reagents:

IC CL ICV_00010 Amount Added: 0.40 Units: mL
 IC SO4 ICV_00014 Amount Added: 0.40 Units: mL
 IC ICV 5_00080 Amount Added: 0.40 Units: mL

TestAmerica Denver

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\08.0000.d

Injection Date: 05-Jun-2015 09:57:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: ICV

Worklist Smp#: 1

Client ID:

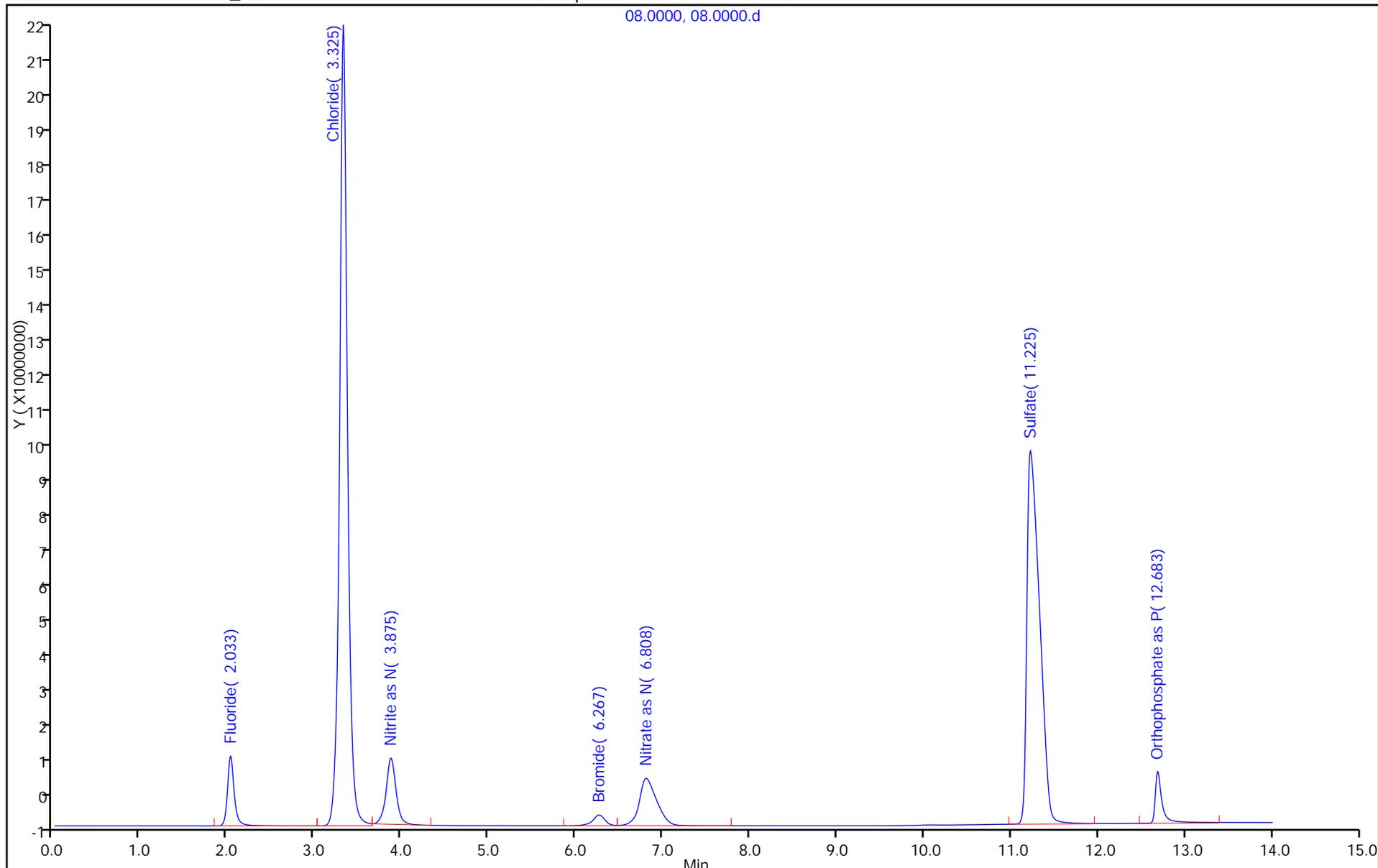
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions 28D



TestAmerica Denver
Area/Height Percent Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\09.0000.d
 Lims ID: ICB
 Client ID:
 Sample Type: ICB
 Inject. Date: 05-Jun-2015 10:14:00 ALS Bottle#: 0 Worklist Smp#: 2
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-002 Temporary sequence for manual data acquisition
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions 28D
 Last Update: 08-Jun-2015 14:27:19 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Process Host: XAWRK022

First Level Reviewer: bensona Date: 05-Jun-2015 11:27:35

Detector: 0005
 Number of peaks found: 7

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.042	1.842	2.208	722708	10.52	5.10		1 Fluoride
2.250	2.208	2.575	81737	1.19	8.29		
3.350	3.192	4.075	97384	1.42	8.90		2 Chloride
4.308	4.075	4.550	56163	0.82	7.67		
6.967	5.908	7.092	567811	8.27	31.48		5 Nitrate as N
11.558	11.192	11.583	1031788	15.03	15.24		6 Sulfate
12.783	12.483	13.017	4309462	62.76	16.03		7 Orthophosphate as P
			6867053			Totals	

Total Unknown Area% = 2.01

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\09.0000.d
 Lims ID: ICB
 Client ID:
 Sample Type: ICB
 Inject. Date: 05-Jun-2015 10:14:00 ALS Bottle#: 0 Worklist Smp#: 2
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-002 Temporary sequence for manual data acquisition
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions 28D
 Last Update: 08-Jun-2015 14:27:19 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK022

First Level Reviewer: bensona Date: 05-Jun-2015 11:27:35

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.042	2.033	0.009	722708		-0.003262	
2 Chloride	3.350	3.325	0.025	97384		0.1048	
3 Nitrite as N		3.875				ND	
4 Bromide		6.267				ND	
5 Nitrate as N	6.967	6.808	0.159	567811		0.0371	
6 Sulfate	11.558	11.225	0.333	1031788		0.1143	
7 Orthophosphate as P	12.783	12.683	0.100	4309462		0.1139	

TestAmerica Denver

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\09.0000.d

Injection Date: 05-Jun-2015 10:14:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: ICB

Worklist Smp#: 2

Client ID:

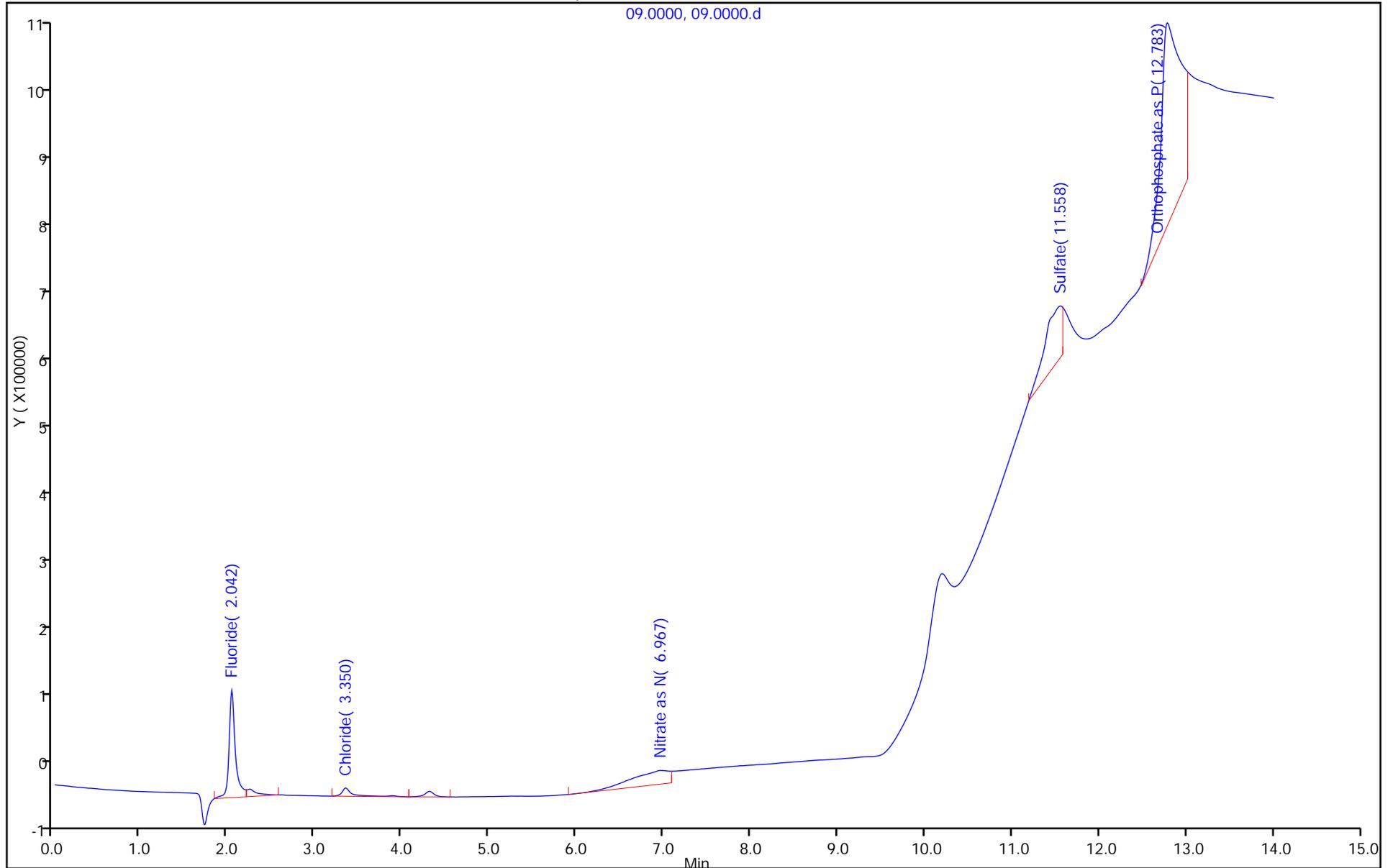
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions 28D



TestAmerica Denver
Area/Height Percent Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\10.0000.d
 Lims ID: MRL
 Client ID:
 Sample Type: MRL
 Inject. Date: 05-Jun-2015 10:31:00 ALS Bottle#: 0 Worklist Smp#: 3
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-003 Temporary sequence for manual data acquisition
 Misc. Info.: 10
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions 28D
 Last Update: 08-Jun-2015 14:27:19 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Process Host: XAWRK022

Detector: 0005
 Number of peaks found: 7

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.050	1.842	2.892	5787581	5.48	4.85		1 Fluoride
3.358	3.092	3.675	42978750	40.70	5.99		2 Chloride
3.892	3.675	4.242	7957141	7.54	6.46		3 Nitrite as N
6.283	5.833	6.500	1154225	1.09	10.05		4 Bromide
6.942	6.500	7.567	8573262	8.12	11.65		5 Nitrate as N
11.417	11.158	11.808	31526879	29.86	5.03		6 Sulfate
12.750	12.483	13.117	7621200	7.22	13.05		7 Orthophosphate as P
			105599038			Totals	

Total Unknown Area% = 0.00

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\10.0000.d
 Lims ID: MRL
 Client ID:
 Sample Type: MRL
 Inject. Date: 05-Jun-2015 10:31:00 ALS Bottle#: 0 Worklist Smp#: 3
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-003 Temporary sequence for manual data acquisition
 Misc. Info.: 10
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions 28D
 Last Update: 08-Jun-2015 14:27:19 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK022

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.050	2.033	0.017	5787581	0.2000	0.1911	
2 Chloride	3.358	3.325	0.033	42978750	2.50	2.58	
3 Nitrite as N	3.892	3.875	0.017	7957141	0.2000	0.1712	
4 Bromide	6.283	6.267	0.016	1154225	0.2000	0.2290	
5 Nitrate as N	6.942	6.808	0.134	8573262	0.2000	0.2170	
6 Sulfate	11.417	11.225	0.192	31526879	2.50	2.54	
7 Orthophosphate as P	12.750	12.683	0.067	7621200	0.2000	0.2930	

Reagents:

IC CAL cl/so4_00051 Amount Added: 0.05 Units: mL
 IC Cal low_00092 Amount Added: 0.02 Units: mL

TestAmerica Denver

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\10.0000.d

Injection Date: 05-Jun-2015 10:31:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: MRL

Worklist Smp#: 3

Client ID:

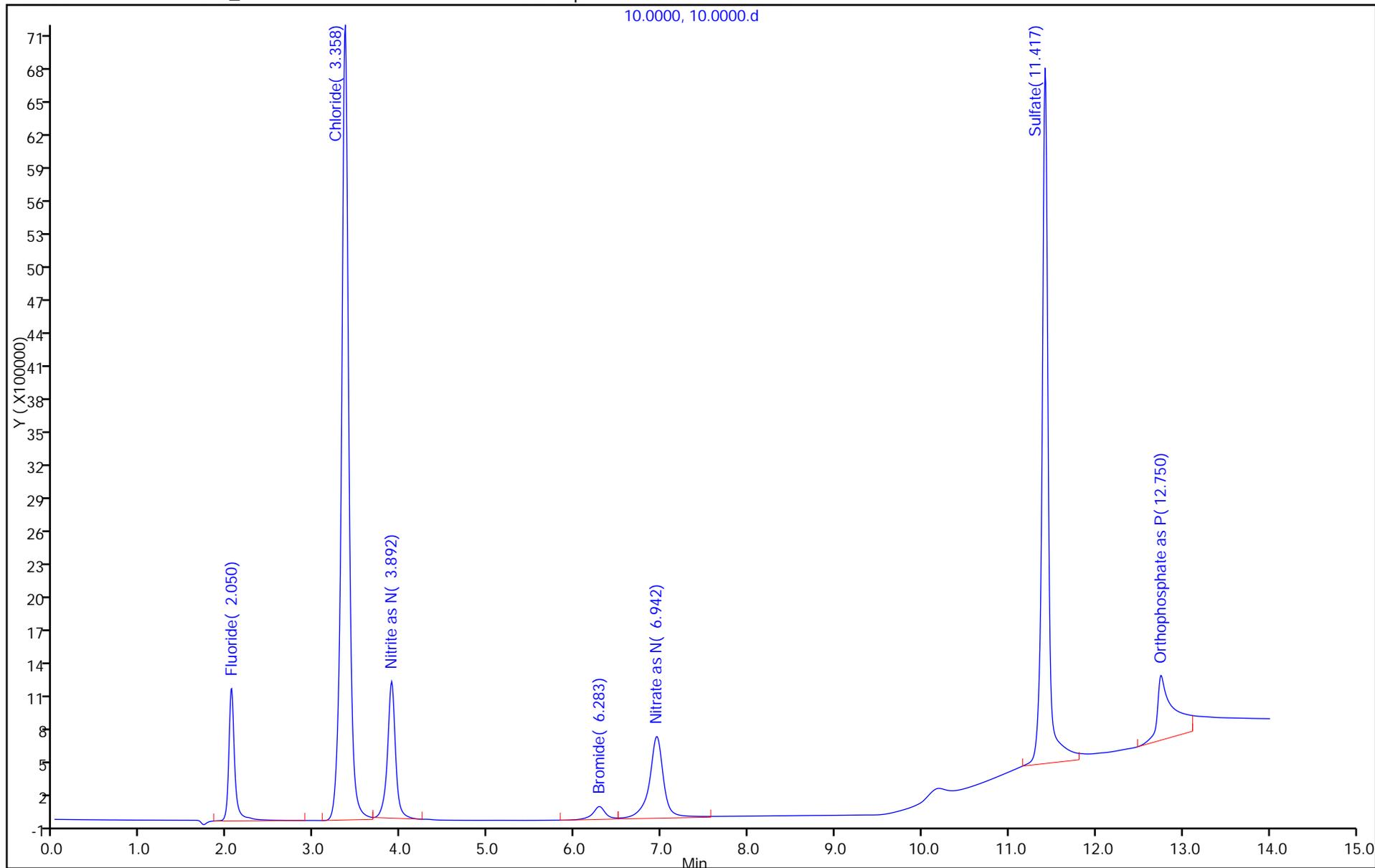
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions 28D



TestAmerica Denver
Area/Height Percent Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\11.0000.d
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 05-Jun-2015 10:48:00 ALS Bottle#: 0 Worklist Smp#: 4
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-004 Temporary sequence for manual data acquisition
 Misc. Info.: 11 F
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions 28D
 Last Update: 08-Jun-2015 14:27:19 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Process Host: XAWRK022

Detector: 0005
 Number of peaks found: 7

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.050	1.842	3.050	136412622	3.68	5.59		1 Fluoride
3.333	3.050	3.667	1746482885	47.18	6.20		2 Chloride
3.883	3.667	4.342	186676595	5.04	8.16		3 Nitrite as N
6.233	5.825	6.442	34674249	0.94	9.48		4 Bromide
6.750	6.442	7.833	221816201	5.99	14.01		5 Nitrate as N
11.217	10.983	11.850	1278130737	34.52	10.91		6 Sulfate
12.675	12.475	13.367	97863536	2.64	5.77		7 Orthophosphate as P
			3702056825			Totals	

Total Unknown Area% = 0.00

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\11.0000.d
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 05-Jun-2015 10:48:00 ALS Bottle#: 0 Worklist Smp#: 4
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-004 Temporary sequence for manual data acquisition
 Misc. Info.: 11 F
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions 28D
 Last Update: 08-Jun-2015 14:27:19 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK022

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.050	2.033	0.017	136412622	5.00	5.20	
2 Chloride	3.333	3.325	0.008	1746482885	100.0	101.1	
3 Nitrite as N	3.883	3.875	0.008	186676595	5.00	5.34	
4 Bromide	6.233	6.267	-0.034	34674249	5.00	4.81	
5 Nitrate as N	6.750	6.808	-0.058	221816201	5.00	5.01	
6 Sulfate	11.217	11.225	-0.008	1278130737	100.0	101.8	
7 Orthophosphate as P	12.675	12.683	-0.008	97863536	5.00	5.18	

Reagents:

IC LCS_00279 Amount Added: 5.00 Units: mL

TestAmerica Denver

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\11.0000.d

Injection Date: 05-Jun-2015 10:48:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: LCS

Worklist Smp#: 4

Client ID:

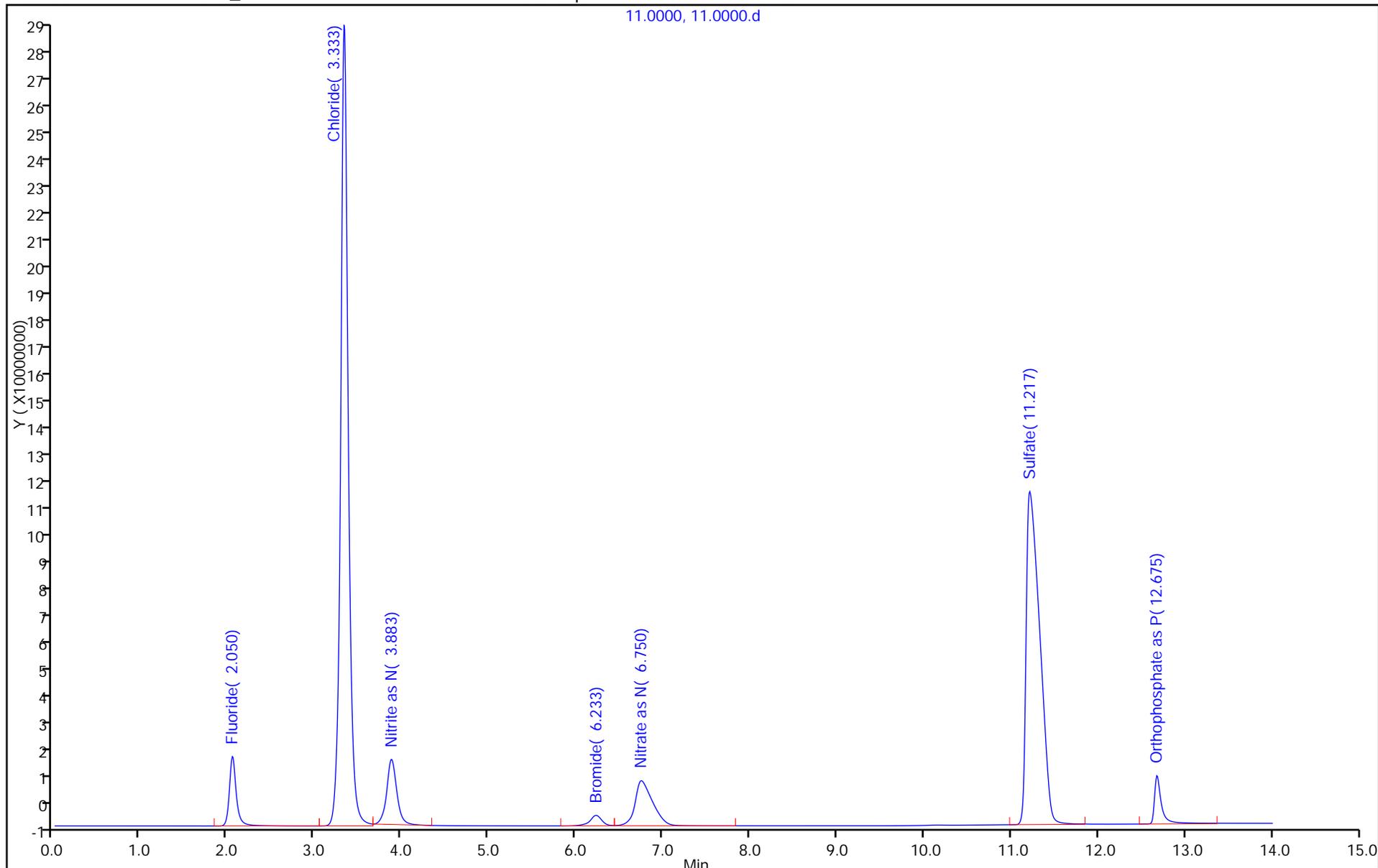
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions 28D



TestAmerica Denver
Area/Height Percent Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\12.0000.d
 Lims ID: LCSD
 Client ID:
 Sample Type: LCSD
 Inject. Date: 05-Jun-2015 11:04:00 ALS Bottle#: 0 Worklist Smp#: 5
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-005 Temporary sequence for manual data acquisition
 Misc. Info.: 12 F
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions 28D
 Last Update: 08-Jun-2015 14:27:19 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Process Host: XAWRK022

Detector: 0005
 Number of peaks found: 7

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.050	1.842	3.050	136994707	3.70	5.59		1 Fluoride
3.333	3.050	3.667	1741510841	47.07	6.15		2 Chloride
3.883	3.667	4.342	187693329	5.07	8.08		3 Nitrite as N
6.225	5.825	6.433	34719449	0.94	9.28		4 Bromide
6.742	6.433	7.875	221889925	6.00	13.84		5 Nitrate as N
11.225	11.000	11.867	1277398331	34.53	10.90		6 Sulfate
12.683	12.483	13.383	99596608	2.69	5.76		7 Orthophosphate as P
			3699803190			Totals	

Total Unknown Area% = 0.00

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\12.0000.d
 Lims ID: LCSD
 Client ID:
 Sample Type: LCSD
 Inject. Date: 05-Jun-2015 11:04:00 ALS Bottle#: 0 Worklist Smp#: 5
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-005 Temporary sequence for manual data acquisition
 Misc. Info.: 12 F
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions 28D
 Last Update: 08-Jun-2015 14:27:19 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK022

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.050	2.033	0.017	136994707	5.00	5.23	
2 Chloride	3.333	3.325	0.008	1741510841	100.0	100.8	
3 Nitrite as N	3.883	3.875	0.008	187693329	5.00	5.37	
4 Bromide	6.225	6.267	-0.042	34719449	5.00	4.82	
5 Nitrate as N	6.742	6.808	-0.066	221889925	5.00	5.01	
6 Sulfate	11.225	11.225	0.000	1277398331	100.0	101.8	
7 Orthophosphate as P	12.683	12.683	0.000	99596608	5.00	5.27	

Reagents:

IC LCS_00279 Amount Added: 5.00 Units: mL

TestAmerica Denver

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\12.0000.d

Injection Date: 05-Jun-2015 11:04:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: LCSD

Worklist Smp#: 5

Client ID:

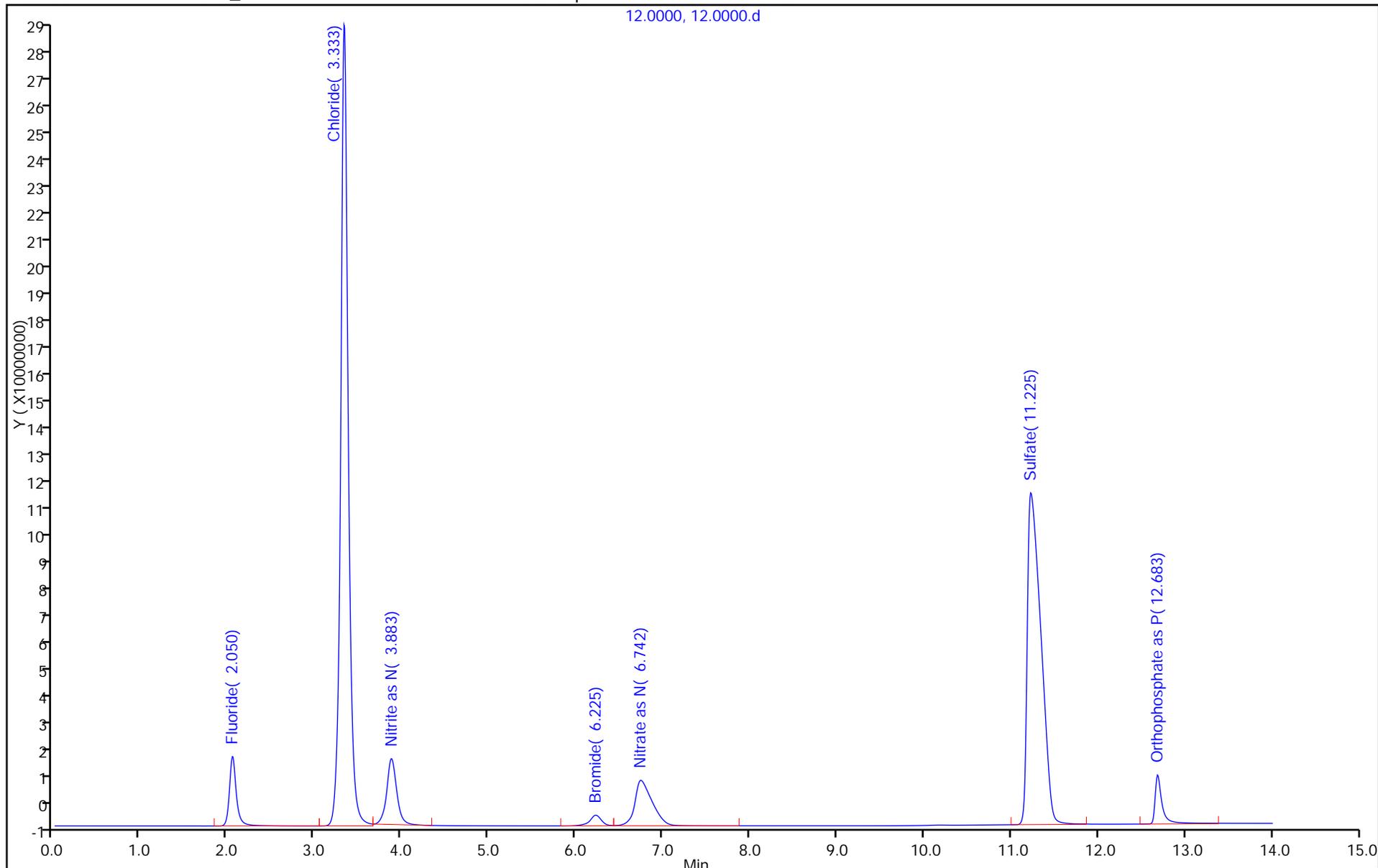
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions 28D



TestAmerica Denver
Area/Height Percent Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\13.0000.d
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 05-Jun-2015 11:21:00 ALS Bottle#: 0 Worklist Smp#: 6
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-006 Temporary sequence for manual data acquisition
 Misc. Info.: 13 F
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions 28D
 Last Update: 08-Jun-2015 14:27:19 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Process Host: XAWRK022

Detector: 0005
 Number of peaks found: 5

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.042	1.842	2.275	1328624	16.70	4.53		1 Fluoride
3.350	3.175	3.767	125100	1.57	8.03		2 Chloride
6.958	5.892	7.183	671715	8.44	29.16		5 Nitrate as N
11.450	11.267	11.467	264257	3.32	5.74		6 Sulfate
12.775	12.475	13.075	5565400	69.96	15.99		7 Orthophosphate as P
			7955096			Totals	

Total Unknown Area% = 0.00

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\13.0000.d
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 05-Jun-2015 11:21:00 ALS Bottle#: 0 Worklist Smp#: 6
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-006 Temporary sequence for manual data acquisition
 Misc. Info.: 13 F
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions 28D
 Last Update: 08-Jun-2015 14:27:19 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK022

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.042	2.033	0.009	1328624		0.0200	
2 Chloride	3.350	3.325	0.025	125100		0.1064	
3 Nitrite as N		3.875				ND	
4 Bromide		6.267				ND	
5 Nitrate as N	6.958	6.808	0.150	671715		0.0395	
6 Sulfate	11.450	11.225	0.225	264257		0.0532	
7 Orthophosphate as P	12.775	12.683	0.092	5565400		0.1818	

TestAmerica Denver

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\13.0000.d

Injection Date: 05-Jun-2015 11:21:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: MB

Worklist Smp#: 6

Client ID:

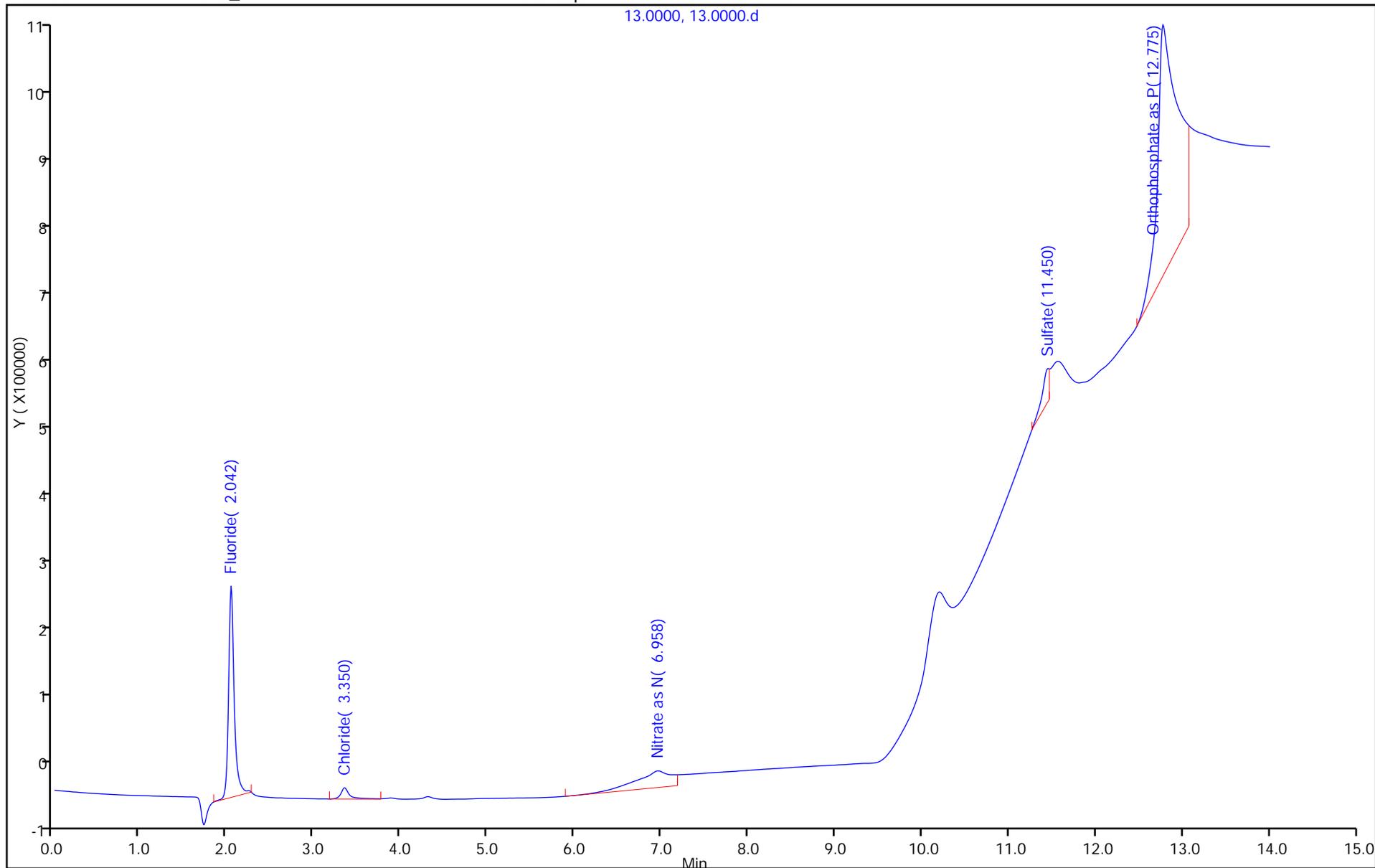
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions 28D



TestAmerica Denver
Area/Height Percent Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\14.0000.d
 Lims ID: 280-70279-A-6 Lab Sample ID: 280-70279-6
 Client ID: 54400-MW55D-0615
 Sample Type: Client
 Inject. Date: 05-Jun-2015 11:38:00 ALS Bottle#: 0 Worklist Smp#: 7
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-007 Temporary sequence for manual data acquisition
 Misc. Info.: 23264 650 F
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions 28D
 Last Update: 08-Jun-2015 14:27:19 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Process Host: XAWRK022

Detector: 0005

Number of peaks found: 7

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.042	1.842	3.058	7267928	0.70	5.17		1 Fluoride
3.342	3.058	4.233	343043852	32.87	5.97		2 Chloride
6.083	5.817	6.217	435049	0.04	7.73		4 Bromide
6.608	6.217	7.142	48372334	4.63	10.15		5 Nitrate as N
8.025	7.367	11.033	315602065	30.24	126.30		
11.358	11.033	11.933	326944427	31.32	6.80		6 Sulfate
12.917	12.500	12.942	2056376	0.20	14.19		7 Orthophosphate as P
			1043722031			Totals	

Total Unknown Area% = 30.24

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\14.0000.d
 Lims ID: 280-70279-A-6 Lab Sample ID: 280-70279-6
 Client ID: 54400-MW55D-0615
 Sample Type: Client
 Inject. Date: 05-Jun-2015 11:38:00 ALS Bottle#: 0 Worklist Smp#: 7
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-007 Temporary sequence for manual data acquisition
 Misc. Info.: 23264 650 F
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions 28D
 Last Update: 08-Jun-2015 14:27:19 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK022

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.042	2.033	0.009	7267928	0.2479	
2 Chloride	3.342	3.325	0.017	343043852	19.9	
3 Nitrite as N		3.875			ND	
4 Bromide	6.083	6.267	-0.184	435049	0.1307	
5 Nitrate as N	6.608	6.808	-0.200	48372334	1.11	
6 Sulfate	11.358	11.225	0.133	326944427	26.1	
7 Orthophosphate as P	12.917	12.683	0.234	2056376	-0.008013	

TestAmerica Denver

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\14.0000.d

Injection Date: 05-Jun-2015 11:38:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: 280-70279-A-6

Lab Sample ID: 280-70279-6

Worklist Smp#: 7

Client ID: 54400-MW55D-0615

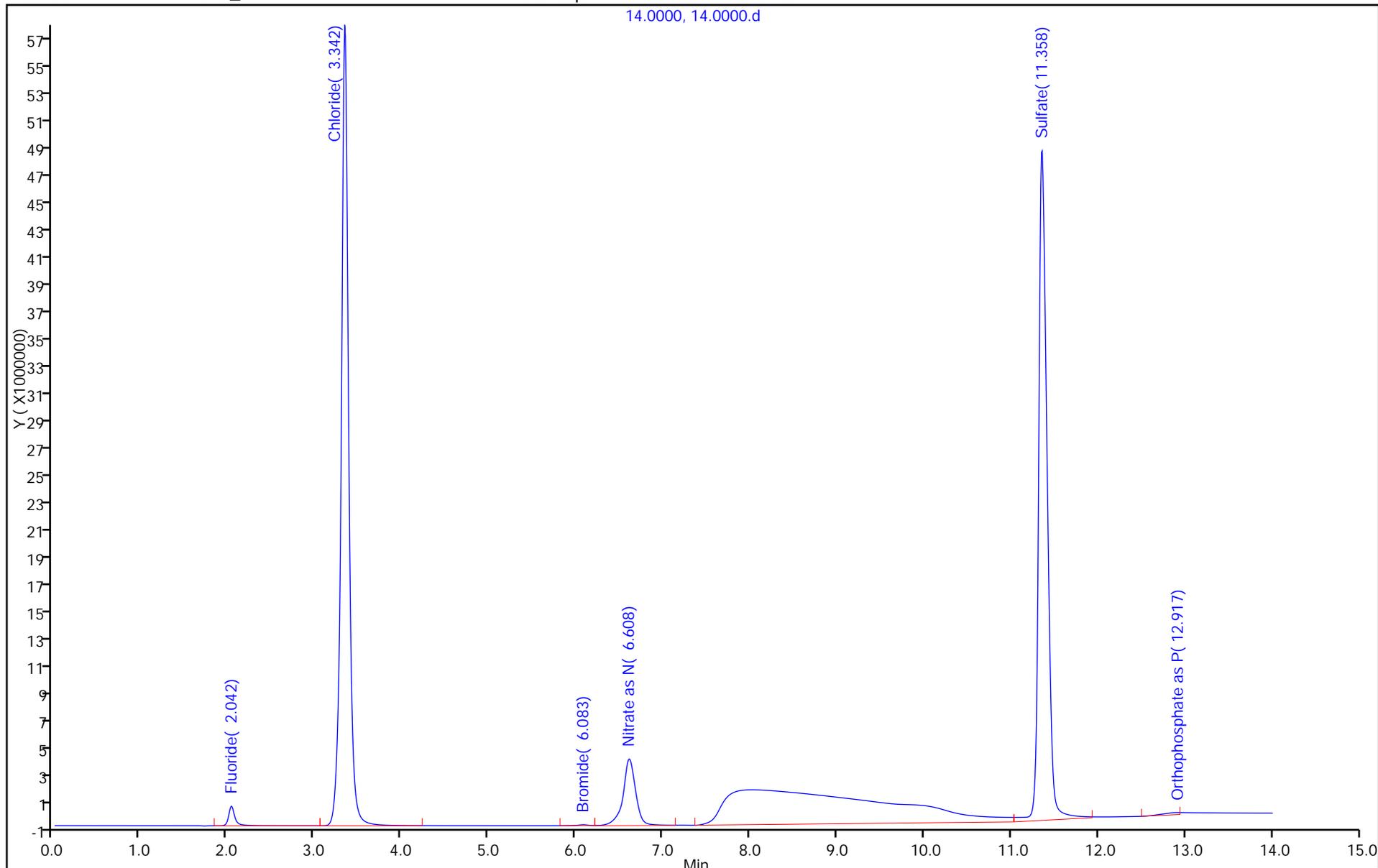
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions 28D



TestAmerica Denver
Area/Height Percent Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\15.0000.d
 Lims ID: 280-70279-A-6 DU
 Client ID:
 Sample Type: DU
 Inject. Date: 05-Jun-2015 11:55:00 ALS Bottle#: 0 Worklist Smp#: 8
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-008 Temporary sequence for manual data acquisition
 Misc. Info.: 21705 650 F
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions 28D
 Last Update: 08-Jun-2015 14:27:19 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Process Host: XAWRK022

First Level Reviewer: bensona

Date: 05-Jun-2015 14:31:30

Detector: 0005

Number of peaks found: 7

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.042	1.842	3.042	7247397	0.73	5.18		1 Fluoride
3.342	3.042	4.192	343721358	34.47	5.99		2 Chloride
6.083	5.775	6.217	435053	0.04	7.75		4 Bromide
6.617	6.217	7.142	47688680	4.78	10.02		5 Nitrate as N
8.025	7.383	11.050	279090488	27.99	114.54		
11.350	11.167	11.975	316338881	31.72	6.60	M	6 Sulfate
12.983	12.492	13.008	2656289	0.27	19.60		7 Orthophosphate as P
			997178146			Totals	

Total Unknown Area% = 27.99

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\15.0000.d
 Lims ID: 280-70279-A-6 DU
 Client ID:
 Sample Type: DU
 Inject. Date: 05-Jun-2015 11:55:00 ALS Bottle#: 0 Worklist Smp#: 8
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-008 Temporary sequence for manual data acquisition
 Misc. Info.: 21705 650 F
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions 28D
 Last Update: 08-Jun-2015 14:27:19 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK022

First Level Reviewer: benson Date: 05-Jun-2015 14:31:30

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.042	2.033	0.009	7247397		0.2471	
2 Chloride	3.342	3.325	0.017	343721358		20.0	
3 Nitrite as N		3.875				ND	
4 Bromide	6.083	6.267	-0.184	435053		0.1307	
5 Nitrate as N	6.617	6.808	-0.191	47688680		1.10	
6 Sulfate	11.350	11.225	0.125	316338881		25.2	M
7 Orthophosphate as P	12.983	12.683	0.300	2656289		0.0244	

QC Flag Legend

Review Flags

M - Manually Integrated

TestAmerica Denver

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\15.0000.d

Injection Date: 05-Jun-2015 11:55:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: 280-70279-A-6 DU

Worklist Smp#: 8

Client ID:

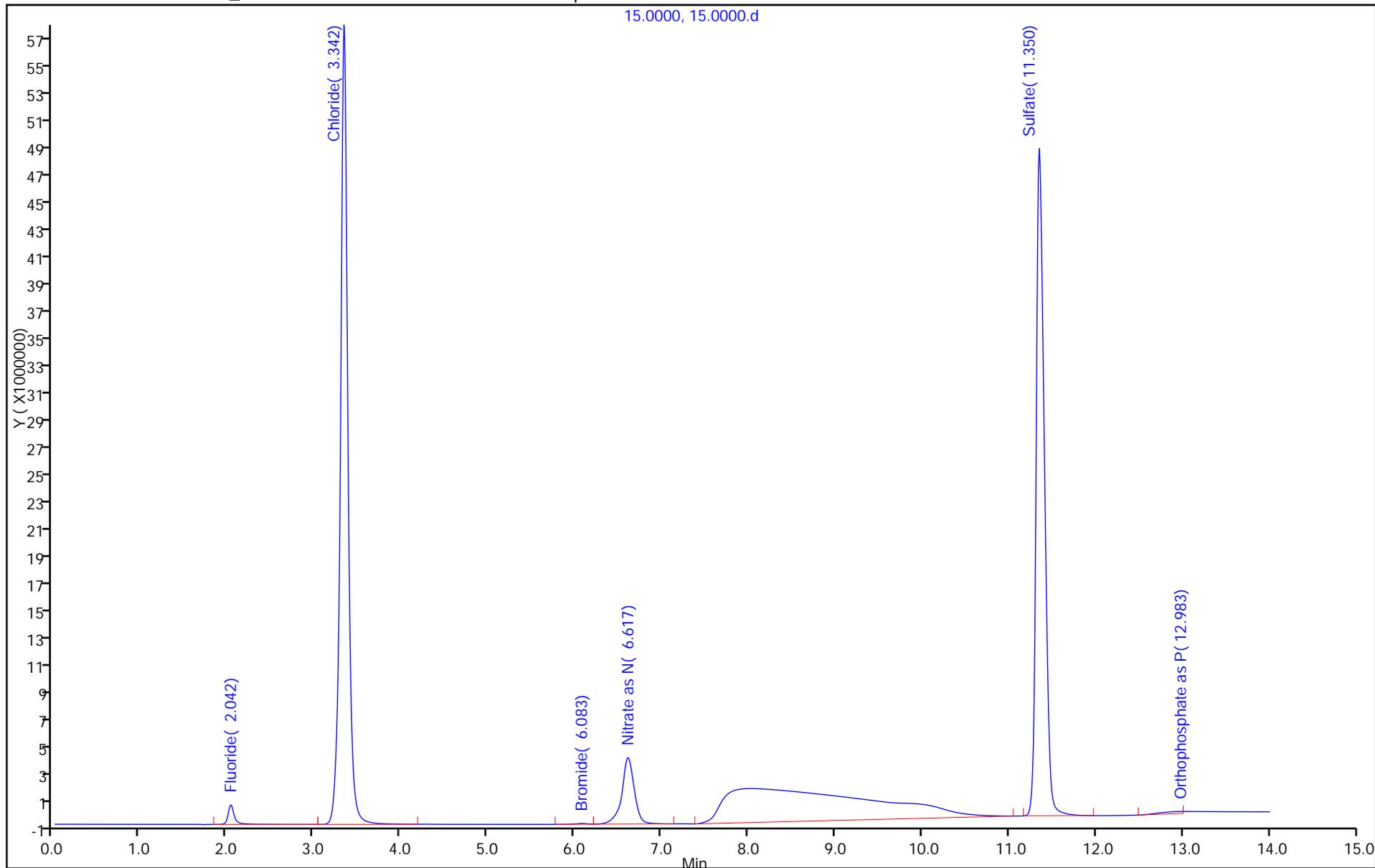
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions 28D



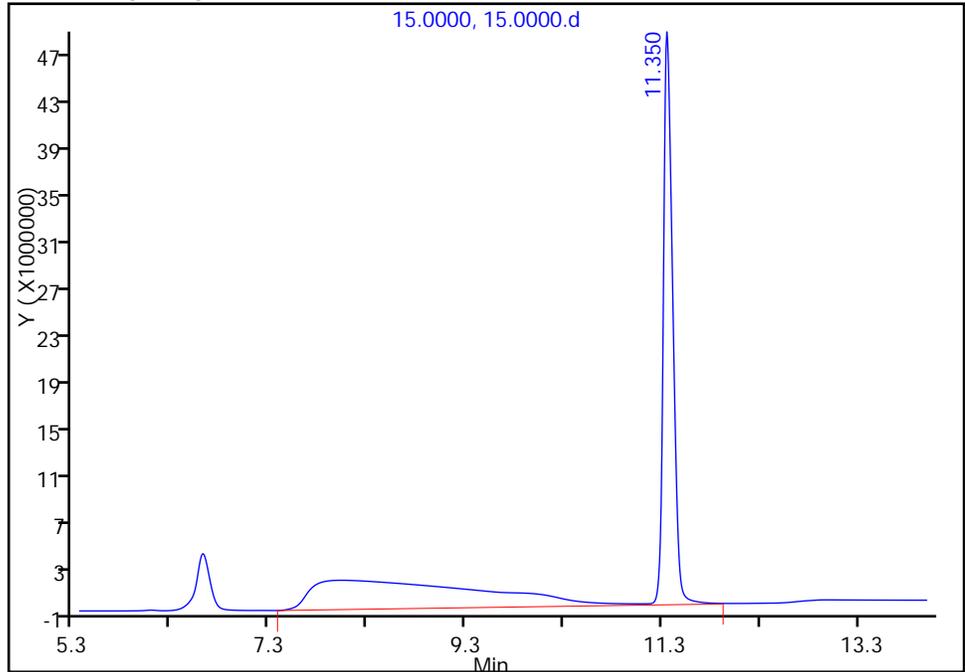
TestAmerica Denver

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\15.0000.d
Injection Date: 05-Jun-2015 11:55:00 Instrument ID: WC_IonChrom8
Lims ID: 280-70279-A-6 DU
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Method: Anions_IC8 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

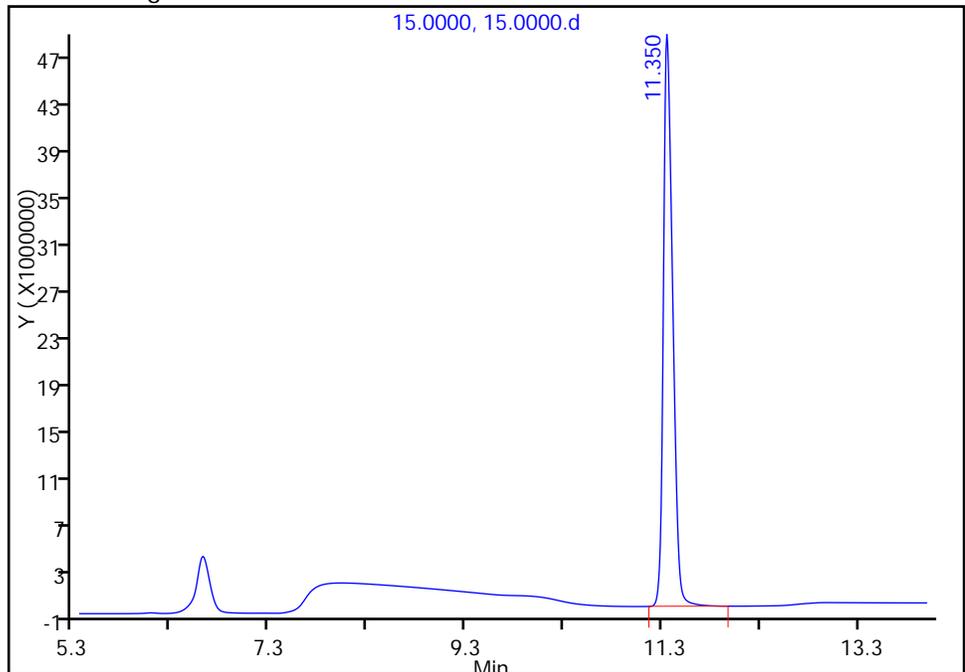
RT: 11.35
Area: 333962307
Amount: 26.632879
Amount Units: ug/ml

Processing Integration Results



RT: 11.35
Area: 316338881
Amount: 25.229138
Amount Units: ug/ml

Manual Integration Results



Reviewer: bensona, 05-Jun-2015 14:31:30
Audit Action: Manually Integrated
Audit Reason: Sample matrix interference

TestAmerica Denver
Area/Height Percent Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\16.0000.d
 Lims ID: 280-70279-A-6 MS
 Client ID:
 Sample Type: MS
 Inject. Date: 05-Jun-2015 12:12:00 ALS Bottle#: 0 Worklist Smp#: 9
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-009 Temporary sequence for manual data acquisition
 Misc. Info.: 19534 650 F
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions 28D
 Last Update: 08-Jun-2015 14:27:19 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Process Host: XAWRK022

Detector: 0005

Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.050	1.858	3.058	146865828	5.94	5.87		1 Fluoride
3.342	3.058	3.650	804505663	32.54	6.13		2 Chloride
3.875	3.650	4.450	183337906	7.42	7.97		3 Nitrite as N
6.058	5.683	6.225	36793724	1.49	8.52		4 Bromide
6.475	6.225	7.342	272043463	11.00	13.05		5 Nitrate as N
8.058	7.417	11.050	272979307	11.04	113.55		
11.300	11.050	11.950	663338550	26.83	8.54		6 Sulfate
12.700	12.500	13.583	92377443	3.74	7.42		7 Orthophosphate as P
			2472241884			Totals	

Total Unknown Area% = 11.04

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\16.0000.d
 Lims ID: 280-70279-A-6 MS
 Client ID:
 Sample Type: MS
 Inject. Date: 05-Jun-2015 12:12:00 ALS Bottle#: 0 Worklist Smp#: 9
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-009 Temporary sequence for manual data acquisition
 Misc. Info.: 19534 650 F
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions 28D
 Last Update: 08-Jun-2015 14:27:19 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK022

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.050	2.033	0.017	146865828	5.00	5.61	
2 Chloride	3.342	3.325	0.017	804505663	25.0	46.6	
3 Nitrite as N	3.875	3.875	0.000	183337906	5.00	5.24	
4 Bromide	6.058	6.267	-0.209	36793724	5.00	5.10	
5 Nitrate as N	6.475	6.808	-0.333	272043463	5.00	6.14	
6 Sulfate	11.300	11.225	0.075	663338550	25.0	52.9	
7 Orthophosphate as P	12.700	12.683	0.017	92377443	5.00	4.88	

Reagents:

ICMS/MSD WEEK_00323

Amount Added: 0.05

Units: mL

TestAmerica Denver

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\16.0000.d

Injection Date: 05-Jun-2015 12:12:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: 280-70279-A-6 MS

Worklist Smp#: 9

Client ID:

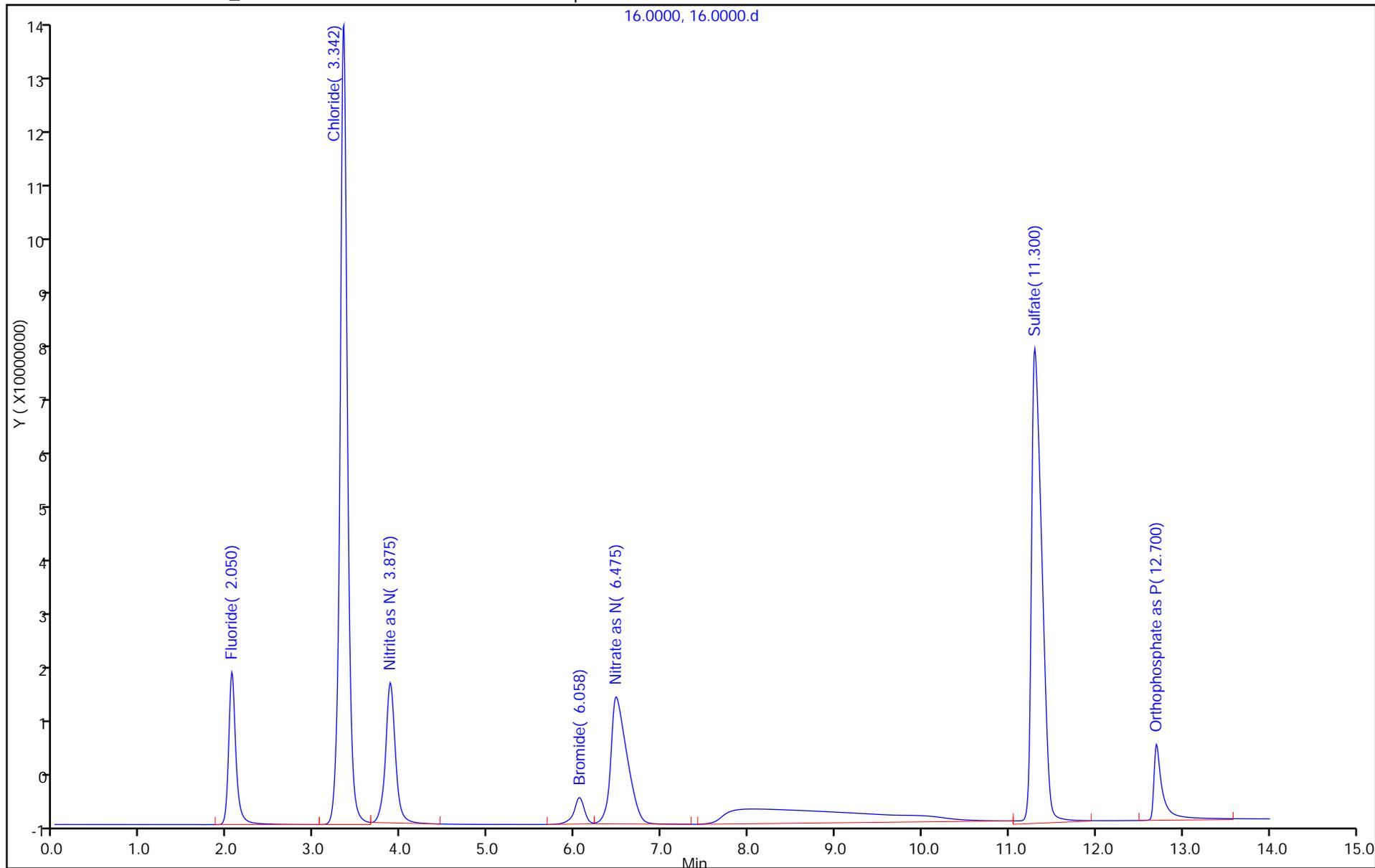
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions 28D



TestAmerica Denver
Area/Height Percent Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\17.0000.d
 Lims ID: 280-70279-A-6 MSD
 Client ID:
 Sample Type: MSD
 Inject. Date: 05-Jun-2015 12:29:00 ALS Bottle#: 0 Worklist Smp#: 10
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-010 Temporary sequence for manual data acquisition
 Misc. Info.: 12466 650 F
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions 28D
 Last Update: 08-Jun-2015 14:27:19 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Process Host: XAWRK022

First Level Reviewer: phantl Date: 05-Jun-2015 17:57:41

Detector: 0005
 Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.050	1.858	3.058	149162332	5.98	5.90		1 Fluoride
3.342	3.058	3.650	810059554	32.49	6.14		2 Chloride
3.875	3.650	4.450	185674021	7.45	7.98		3 Nitrite as N
6.050	5.683	6.217	36949672	1.48	8.50		4 Bromide
6.475	6.217	7.333	273692320	10.98	13.05		5 Nitrate as N
8.042	7.408	11.050	273687309	10.98	113.72		
11.300	11.050	11.967	666912581	26.74	8.58		6 Sulfate
12.700	12.483	13.600	97463537	3.91	7.56		7 Orthophosphate as P
			2493601326			Totals	

Total Unknown Area% = 10.98

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\17.0000.d
 Lims ID: 280-70279-A-6 MSD
 Client ID:
 Sample Type: MSD
 Inject. Date: 05-Jun-2015 12:29:00 ALS Bottle#: 0 Worklist Smp#: 10
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-010 Temporary sequence for manual data acquisition
 Misc. Info.: 12466 650 F
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions 28D
 Last Update: 08-Jun-2015 14:27:19 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK022

First Level Reviewer: phantl Date: 05-Jun-2015 17:57:41

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.050	2.033	0.017	149162332	5.00	5.69	
2 Chloride	3.342	3.325	0.017	810059554	25.0	46.9	
3 Nitrite as N	3.875	3.875	0.000	185674021	5.00	5.31	
4 Bromide	6.050	6.267	-0.217	36949672	5.00	5.12	
5 Nitrate as N	6.475	6.808	-0.333	273692320	5.00	6.18	
6 Sulfate	11.300	11.225	0.075	666912581	25.0	53.2	
7 Orthophosphate as P	12.700	12.683	0.017	97463537	5.00	5.15	

Reagents:

ICMS/MSD WEEK_00323 Amount Added: 0.05 Units: mL

TestAmerica Denver

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\17.0000.d

Injection Date: 05-Jun-2015 12:29:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: 280-70279-A-6 MSD

Worklist Smp#: 10

Client ID:

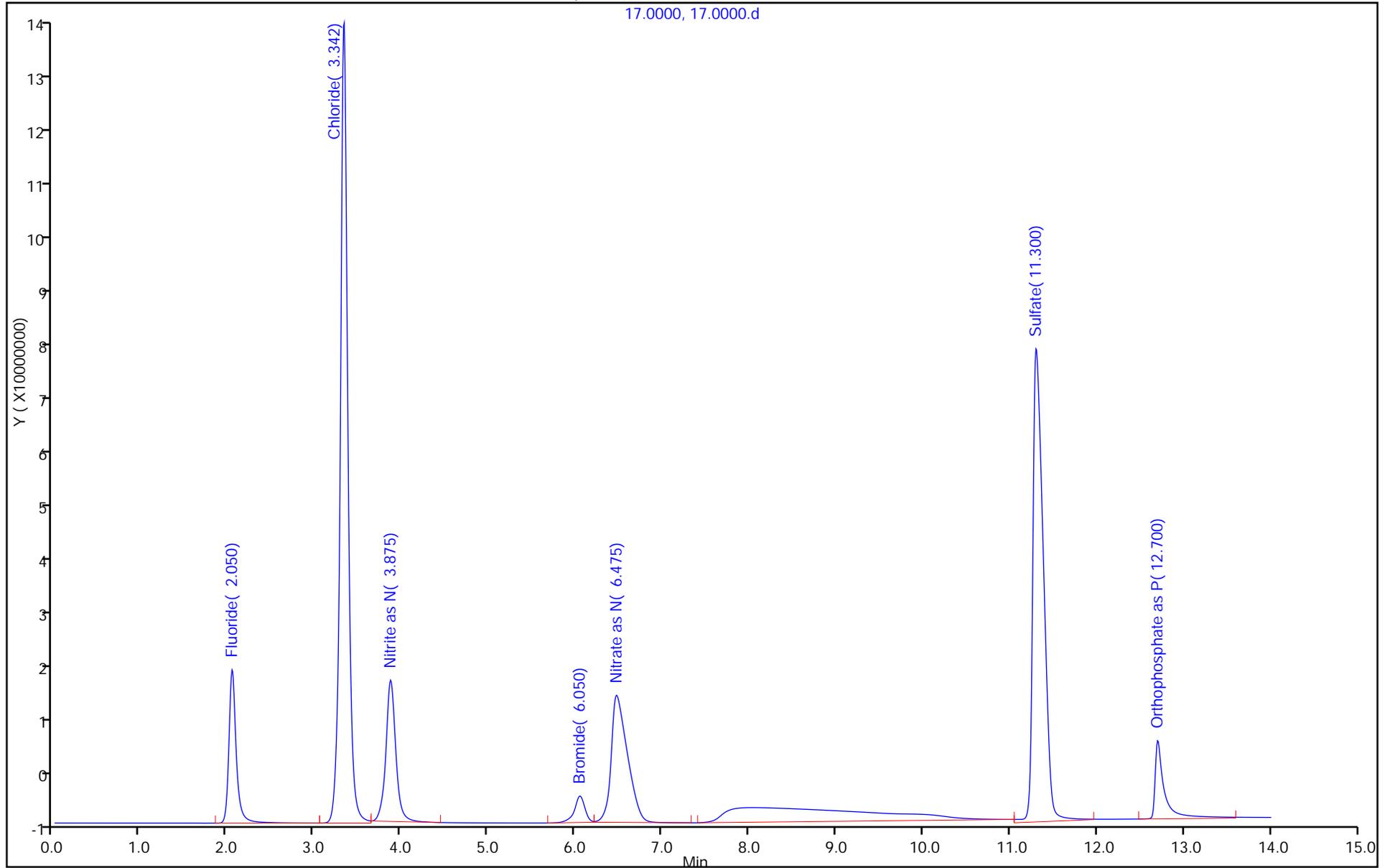
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions 28D



TestAmerica Denver
Area/Height Percent Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\24.0000.d
 Lims ID: ccv
 Client ID:
 Sample Type: CCV
 Inject. Date: 05-Jun-2015 14:50:00 ALS Bottle#: 0 Worklist Smp#: 18
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-018 Temporary sequence for manual data acquisition
 Misc. Info.: 17645
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions 28D
 Last Update: 08-Jun-2015 14:27:28 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Process Host: XAWRK022

Detector: 0005

Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.058	1.842	3.058	137763327	3.69	5.63		1 Fluoride
3.342	3.058	3.683	1747500562	46.76	6.15		2 Chloride
3.892	3.683	4.367	187316750	5.01	8.07		3 Nitrite as N
6.233	5.833	6.442	35081352	0.94	9.13		4 Bromide
6.750	6.442	7.908	223176055	5.97	13.69		5 Nitrate as N
11.258	11.033	11.892	1283177757	34.34	10.88		6 Sulfate
12.717	12.208	13.150	120467476	3.22	9.14		7 Orthophosphate as P
13.250	13.150	13.425	2301454	0.06	7.25		
			3736784733			Totals	

Total Unknown Area% = 0.06

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
CCV, Cal Verification Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\24.0000.d
 Lims ID: ccv
 Client ID:
 Sample Type: CCV
 Inject. Date: 05-Jun-2015 14:50:00 ALS Bottle#: 0 Worklist Smp#: 18
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-018 Temporary sequence for manual data acquisition
 Misc. Info.: 17645
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions 28D
 Last Update: 08-Jun-2015 14:27:28 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK022
 Start Cal Date: 15-May-2015 11:49:00
 End Cal Date: 15-May-2015 13:13:00

Compound	Standard RRF/Amt	DLT RT	Ccal Amt	Ccal RF	%D	Max. %D	%Rec
1 Fluoride	5.00	0.025	5.26	27552665	5.1	10	105
2 Chloride	100.0	0.017	101.1	17475006	1.1	10	101
3 Nitrite as N	5.00	0.017	5.36	37463350	7.1	10	107
4 Bromide	5.00	-0.034	4.87	7016270	-2.7	10	97
5 Nitrate as N	5.00	-0.058	5.04	44635211	0.8	10	101
6 Sulfate	100.0	0.033	102.2	12831778	2.2	10	102
7 Orthophosphate as P	5.00	0.034	6.40	24093495	28.0	10	128

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\24.0000.d
 Lims ID: ccv
 Client ID:
 Sample Type: CCV
 Inject. Date: 05-Jun-2015 14:50:00 ALS Bottle#: 0 Worklist Smp#: 18
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-018 Temporary sequence for manual data acquisition
 Misc. Info.: 17645
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions 28D
 Last Update: 08-Jun-2015 14:27:28 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK022

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.058	2.033	0.025	137763327	5.00	5.26	
2 Chloride	3.342	3.325	0.017	1747500562	100.0	101.1	
3 Nitrite as N	3.892	3.875	0.017	187316750	5.00	5.36	
4 Bromide	6.233	6.267	-0.034	35081352	5.00	4.87	
5 Nitrate as N	6.750	6.808	-0.058	223176055	5.00	5.04	
6 Sulfate	11.258	11.225	0.033	1283177757	100.0	102.2	
7 Orthophosphate as P	12.717	12.683	0.034	120467476	5.00	6.40	

Reagents:

IC LCS_00279 Amount Added: 5.00 Units: mL

TestAmerica Denver

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\24.0000.d

Injection Date: 05-Jun-2015 14:50:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: ccv

Worklist Smp#: 18

Client ID:

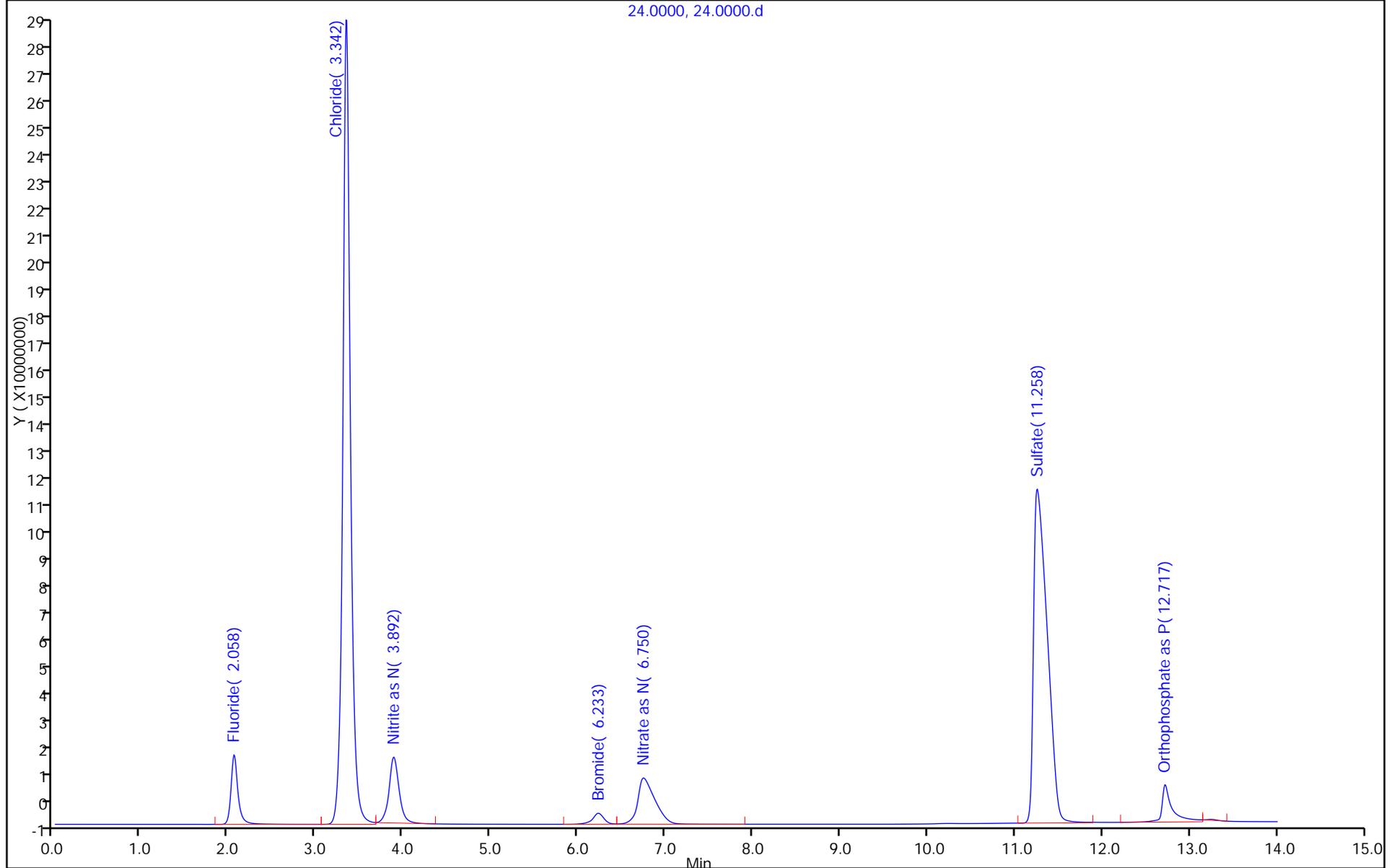
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions 28D



TestAmerica Denver
Area/Height Percent Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\25.0000.d
 Lims ID: ccb
 Client ID:
 Sample Type: CCB
 Inject. Date: 05-Jun-2015 15:07:00 ALS Bottle#: 0 Worklist Smp#: 19
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-019 Temporary sequence for manual data acquisition
 Misc. Info.: 23761
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions 28D
 Last Update: 08-Jun-2015 14:27:28 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Process Host: XAWRK022

Detector: 0005
 Number of peaks found: 7

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.050	1.842	2.225	602867	5.68	5.34		1 Fluoride
2.258	2.225	2.583	64370	0.61	8.10		
3.358	3.192	4.108	117984	1.11	8.78		2 Chloride
4.317	4.117	4.567	29551	0.28	7.11		
6.958	6.525	7.158	324269	3.05	17.57		5 Nitrate as N
11.475	11.175	11.533	813195	7.66	8.66		6 Sulfate
12.942	12.467	13.183	8667696	81.62	23.31		7 Orthophosphate as P
			10619932			Totals	

Total Unknown Area% = 0.88

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\25.0000.d
 Lims ID: ccb
 Client ID:
 Sample Type: CCB
 Inject. Date: 05-Jun-2015 15:07:00 ALS Bottle#: 0 Worklist Smp#: 19
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035736-019 Temporary sequence for manual data acquisition
 Misc. Info.: 23761
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\Anions_IC8.m
 Limit Group: Wet - Anions 28D
 Last Update: 08-Jun-2015 14:27:28 Calib Date: 15-May-2015 13:13:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\WC_IonChrom8\20150515-35069.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK022

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.050	2.033	0.017	602867		-0.007861	
2 Chloride	3.358	3.325	0.033	117984		0.1060	
3 Nitrite as N		3.875				ND	
4 Bromide		6.267				ND	
5 Nitrate as N	6.958	6.808	0.150	324269		0.0317	
6 Sulfate	11.475	11.225	0.250	813195		0.0969	
7 Orthophosphate as P	12.942	12.683	0.259	8667696		0.3496	

TestAmerica Denver

Data File: \\Denchrom\ChromData\WC_IonChrom8\20150605-35736.b\25.0000.d

Injection Date: 05-Jun-2015 15:07:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: ccb

Worklist Smp#: 19

Client ID:

Injection Vol: 25.0 ul

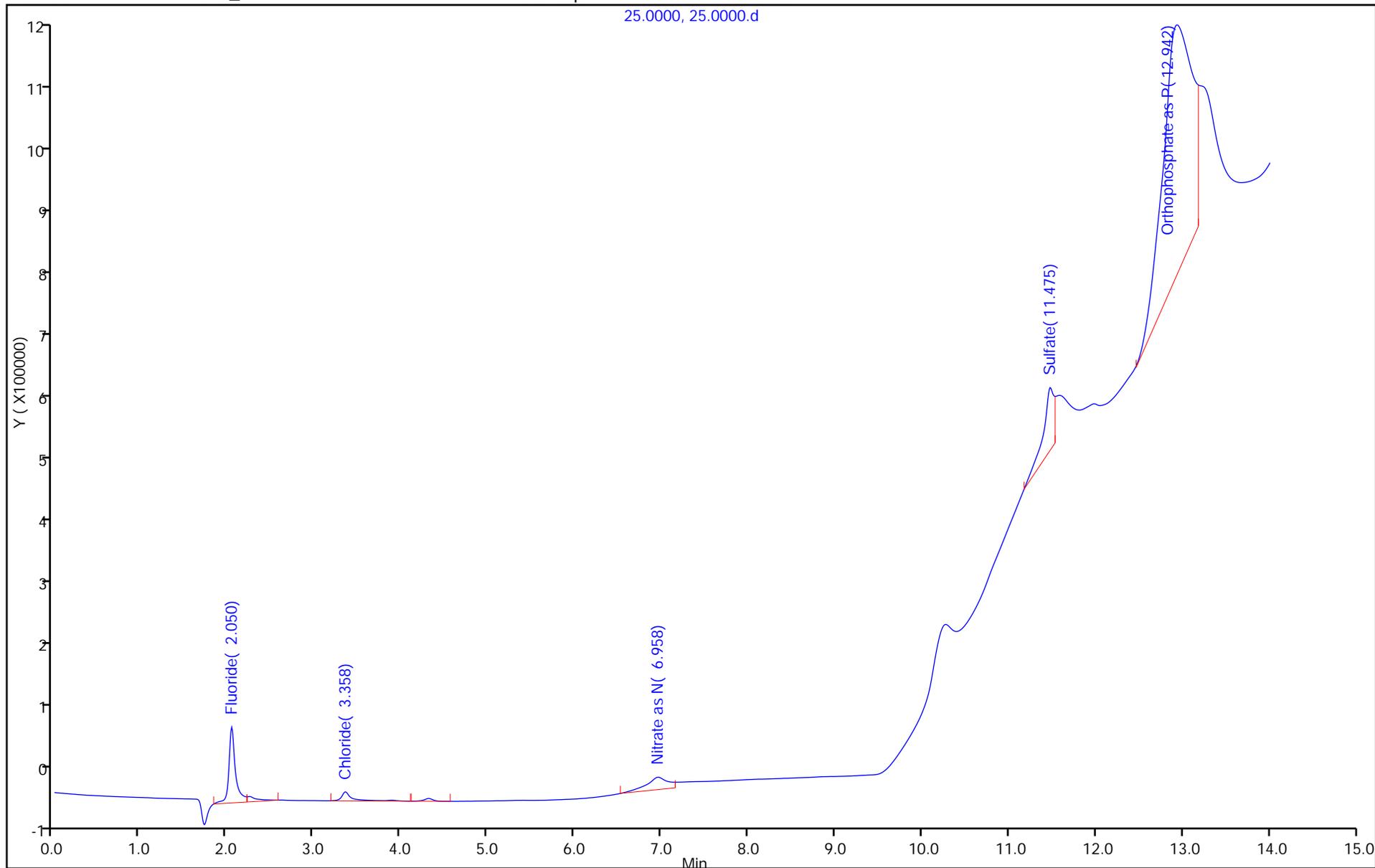
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions 28D

25.0000, 25.0000.d

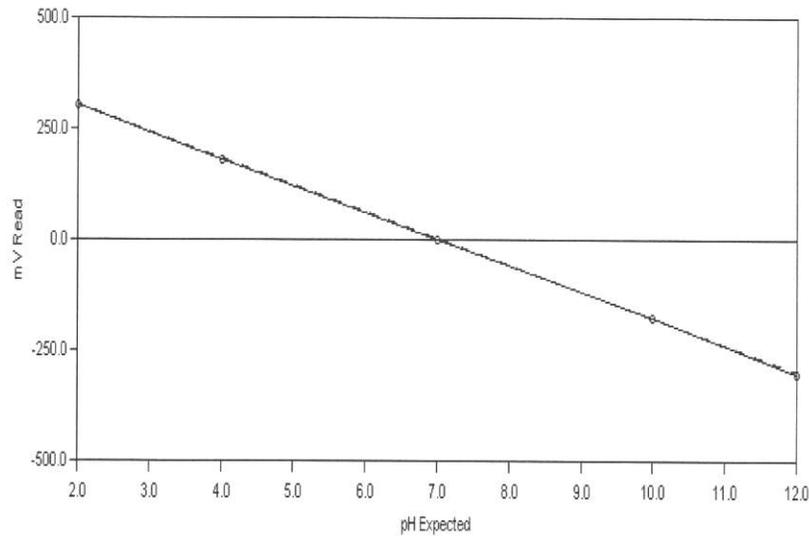


Wet Chemistry Data Review Checklist for Titration Methods

Method(s): 2320B	Instrument: AT3	SOP #: WCO025	Analyst: AS			
Run Date: 6/12/15	Prep Batch(s): NA	Analytical Batch: 281711				
A. Calibration/Instrument Run QC			Yes	No	N/A	2nd Level
Was the normality of the titrant verified and found acceptable?					✓	
B. Sample Results						
Are all sample dilutions appropriate and do associated RLs/MDLs reflect required dilutions or limited sample volume?					✓	—
All reported results bracketed by in control CCV/CCB?			✓			—
Sample analyses done within holding time? If no, create HTV NCM. NCM #			✓			—
Initial pH check documented for all samples (if required)?					✓	—
Preparation benchsheet completed and included in package (if applicable)?					✓	—
Special client requirements checked?			✓			—
Was data manually transcribed from instrument printouts or benchsheet into TALS verified 100% including dilution factors and significant figures? (If Applicable)					✓	—
Do the prep and analysis dates in TALS reflect the actual dates?			✓			—
STD/True Value information is updated and included?			✓			—
C. Preparation/Matrix QC						
Method blank < 1/2 RL or all reported samples > 10x blank? – (Alkalinity MB <RL)			✓			—
Method blank < 1/2 RL or NCM provided? – (Alkalinity MB <RL)			✓			—
LCS/LCSD run for batch and within QC limits?			✓			—
MS/MSD run at required frequency and within limits or NCM written?					✓	—
DUP run at required frequency and RPD within 20% or NCM written?			✓			—
Menu or Tab	Check		1 st	2 nd		
Analyst Desktop	Create or open batch		✓	—		
View Batch Info	Confirm all fields are populated		✓	—		
	Edit Analyst ID as is appropriate		✓	—		
Run log	Verify the correct samples and QC are run at the correct frequency (i.e., 10 samples per CCV)		✓	—		
Sample List	In Edit mode, if prompted to process samples, select "Yes"		✓	—		
	Confirm samples are identified (Blue P Icon)		✓	—		
	Confirm correct analysis date and time are listed		✓	—		
	Confirm samples have the correct dilution factors		✓	—		
	Confirm samples have the correct method chain assigned		✓	—		
	Confirm that solid samples have the % moisture listed		✓	—		
Worksheet	Populate all appropriate fields in the worksheet. Initial Amount, Final Amount, pH, etc.		✓	—		
	Confirm that data are entered correctly. Verify pH is recorded when appropriate for the method.		✓	—		
Reagents	Confirm reagents are correct and properly associated with QC samples. Confirm that reagent amounts are correct. If reagents are new verify that the correct COA has been attached to the source standard		✓	—		
Results	Check for special instructions (Login, Method and Sample comments) - red notebook icon		✓	—		
	Check for any QC failures		✓	—		
	Check for "E" flagged (over-range) data		✓	—		
	Set status for samples based on QC and sample results info (i.e., set to primary analysis with passing QC or reject samples without passing QC or samples that are over-range)		✓	—		
	Address any results that are reported without passing QC with an NCM		✓	—		
QC Links	Confirm QC links are correct		✓	—		
Hist. Data Check	Check historical data. Print charts for outliers. Take corrective action as is appropriate		✓	—		
Sample List	Re-calculate data and set to appropriate review status (1 st or 2 nd level review)		✓	—		
	Scan and attach raw data & save batch		✓	—		
Analyst: AS	Date: 6/15/15	Analyst Comments: NA				
Reviewer: RS	Date: 6/18/15	Reviewer Comments: _____				

PC-TitratiON PLUS Calibration Report

Calibration Record # 899



Calibration Settings

Calibration ID	PH	Date	06/12/2015
Channel	1	Time	11:10 AM
Probe Type	pH	Temperature	294.18 K 21.03 C
Probe ID	PH ELECTRODE	Analysis Type	Single Line Fit

Calibration Results

Slope	-60.190	CorrCoeff	1.0000
Intercept	1.024	Equation:	$Y = (-60.190) X + (1.024)$

Calibration Validity True

Operator

	Result	Minimum	Maximum
Slope	-60.190	-65.00	-53.00
Intercept	1.024	-100.00	100.00
Correlation Coefficient	1.0000	0.99	1.00

Note: "True" means the calibration was within the specified ranges
 "False" means the calibration was NOT within the specified ranges

Calibration Data	Standard	Reading
	2.00	301.75
	4.00	181.15
	7.00	1.46
	10.00	-177.73
	12.00	-301.51

Test America

Water Analysis Report

Run Number 3279 **Order Number** 20150612-2

<u>SampleID</u>	<u>RunDate</u>	<u>RunTime</u>	<u>Temp</u>	<u>cond (uS)</u>	<u>pH</u>	<u>palk-ppm</u>	<u>talk-ppm</u>	<u>bcarb-ppm</u>	<u>carb-ppm</u>	<u>hydr-ppm</u>	<u>(mL) @ 8.3</u>	<u>(mL) @ 4.5</u>	<u>(mL) @ 4.2</u>	<u>Conc (N)</u>
Rinse	06/12/2015	11:39 AM	21.38	-1.00	6.13	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
Buffer 7	06/12/2015	11:45 AM	21.15	-1.00	6.99	.00	1,611.92	1,611.92	.00	.00	.00	16.12	-1.00	.02
Initial Check	06/12/2015	11:50 AM	21.18	-1.00	10.67	97.67	186.38	.00	177.42	8.96	.98	1.86	-1.00	.02
LCS	06/12/2015	11:55 AM	21.06	-1.00	10.68	100.02	189.96	.00	179.89	10.07	1.00	1.90	-1.00	.02
MB	06/12/2015	11:59 AM	21.06	-1.00	6.13	.00	.60	.60	.00	.00	.00	.02	.04	.02
280-70543-c-1	06/12/2015	12:04 PM	20.88	-1.00	7.33	.00	363.85	363.85	.00	.00	.00	3.64	-1.00	.02
DU 280-70543-c-1	06/12/2015	12:08 PM	20.77	-1.00	7.32	.00	357.54	357.54	.00	.00	.00	3.58	-1.00	.02
280-70534-a-1	06/12/2015	12:12 PM	20.69	-1.00	5.90	.00	.72	.72	.00	.00	.00	.02	.04	.02
280-70534-a-2	06/12/2015	12:18 PM	20.62	-1.00	7.68	.00	175.34	175.34	.00	.00	.00	1.75	-1.00	.02
280-70534-a-3	06/12/2015	12:22 PM	20.76	-1.00	7.69	.00	170.27	170.27	.00	.00	.00	1.70	-1.00	.02
280-70534-a-4	06/12/2015	12:28 PM	20.85	-1.00	7.55	.00	1,142.88	1,142.88	.00	.00	.00	11.43	-1.00	.02
280-70328-c-1	06/12/2015	12:33 PM	20.91	-1.00	7.62	.00	674.51	674.51	.00	.00	.00	6.75	-1.00	.02
280-70328-c-2	06/12/2015	12:38 PM	20.87	-1.00	7.72	.00	501.43	501.43	.00	.00	.00	5.01	-1.00	.02
280-70328-c-3	06/12/2015	12:43 PM	20.91	-1.00	8.03	.00	453.01	453.01	.00	.00	.00	4.53	-1.00	.02
280-70328-c-4	06/12/2015	12:47 PM	20.95	-1.00	6.10	.00	.87	.87	.00	.00	.00	.02	.04	.02
CCV	06/12/2015	12:53 PM	21.08	-1.00	10.65	100.48	191.80	.00	182.64	9.16	1.00	1.92	-1.00	.02
CCB	06/12/2015	12:57 PM	21.32	-1.00	5.95	.00	.56	.56	.00	.00	.00	.02	.04	.02
280-70601-a-1	06/12/2015	1:01 PM	21.25	-1.00	7.45	.00	251.09	251.09	.00	.00	.00	2.51	-1.00	.02
280-70601-a-2	06/12/2015	1:06 PM	21.16	-1.00	7.51	.00	248.66	248.66	.00	.00	.00	2.49	-1.00	.02
280-70601-a-3	06/12/2015	1:10 PM	21.09	-1.00	7.14	.00	547.73	547.73	.00	.00	.00	5.48	-1.00	.02
280-70601-a-4	06/12/2015	1:15 PM	21.09	-1.00	7.54	.00	260.63	260.63	.00	.00	.00	2.61	-1.00	.02
280-70601-a-5	06/12/2015	1:19 PM	21.14	-1.00	7.69	.00	239.97	239.97	.00	.00	.00	2.40	-1.00	.02
280-70601-a-6	06/12/2015	1:25 PM	21.21	-1.00	7.24	.00	385.00	385.00	.00	.00	.00	3.85	-1.00	.02
280-70601-a-7	06/12/2015	1:29 PM	21.38	-1.00	7.17	.00	466.32	466.32	.00	.00	.00	4.66	-1.00	.02
280-70601-a-8	06/12/2015	1:34 PM	21.35	-1.00	7.69	.00	242.17	242.17	.00	.00	.00	2.42	-1.00	.02
280-70279-d-6	06/12/2015	1:38 PM	21.25	-1.00	7.54	.00	345.95	345.95	.00	.00	.00	3.46	-1.00	.02
280-70283-a-1	06/12/2015	1:42 PM	21.24	-1.00	6.35	.00	35.87	35.87	.00	.00	.00	.36	-1.00	.02

Page 1717 of 1738

06/25/2015
Page: 1 of 3
PC-TitratiON PLUS by Man-Tech Associates, Inc.

Run Number

3279

Order Number

20150612-2

<u>SampleID</u>	<u>RunDate</u>	<u>RunTime</u>	<u>Temp</u>	<u>cond (uS)</u>	<u>pH</u>	<u>palk-ppm</u>	<u>talk-ppm</u>	<u>bcarb-ppm</u>	<u>carb-ppm</u>	<u>hydr-ppm</u>	<u>(mL) @ 8.3</u>	<u>(mL) @ 4.5</u>	<u>(mL) @ 4.2</u>	<u>Conc (N)</u>
CCV2	06/12/2015	1:47 PM	21.27	-1.00	10.62	99.25	191.81	.00	185.12	6.68	.99	1.92	-1.00	.02
CCB2	06/12/2015	1:51 PM	21.40	-1.00	6.06	.00	.60	.60	.00	.00	.00	.02	.04	.02
LCS	06/12/2015	1:56 PM	21.47	-1.00	10.62	100.28	194.60	.00	188.63	5.97	1.00	1.95	-1.00	.02
MB	06/12/2015	2:00 PM	21.66	-1.00	5.99	.00	.46	.46	.00	.00	.00	.02	.04	.02
280-70283-a-2	06/12/2015	2:04 PM	21.60	-1.00	7.40	.00	58.42	58.42	.00	.00	.00	.58	-1.00	.02
DU 280-70283-a-2	06/12/2015	2:08 PM	21.51	-1.00	7.41	.00	58.15	58.15	.00	.00	.00	.58	-1.00	.02
280-70283-a-3	06/12/2015	2:13 PM	21.41	-1.00	7.89	.00	61.35	61.35	.00	.00	.00	.61	-1.00	.02
280-70283-a-4	06/12/2015	2:16 PM	21.54	-1.00	7.25	.00	43.09	43.09	.00	.00	.00	.43	-1.00	.02
280-70303-g-1	06/12/2015	2:25 PM	21.47	-1.00	7.19	.00	2,447.57	2,447.57	.00	.00	.00	24.48	-1.00	.02
280-70414-a-1	06/12/2015	2:29 PM	21.86	-1.00	7.45	.00	187.28	187.28	.00	.00	.00	1.87	-1.00	.02
280-70414-a-2	06/12/2015	2:34 PM	21.86	-1.00	7.80	.00	168.81	168.81	.00	.00	.00	1.69	-1.00	.02
280-70414-a-3	06/12/2015	2:39 PM	21.86	-1.00	7.57	.00	157.37	157.37	.00	.00	.00	1.57	-1.00	.02
280-70414-a-4	06/12/2015	2:44 PM	21.83	-1.00	7.56	.00	197.58	197.58	.00	.00	.00	1.98	-1.00	.02
280-70305-a-2	06/12/2015	2:48 PM	21.83	-1.00	7.88	.00	72.81	72.81	.00	.00	.00	.73	-1.00	.02
CCV3	06/12/2015	2:53 PM	21.83	-1.00	10.59	99.48	195.09	.00	191.23	3.86	.99	1.95	-1.00	.02
CCB3	06/12/2015	2:57 PM	21.93	-1.00	5.94	.00	.50	.50	.00	.00	.00	.02	.04	.02
280-70305-a-4	06/12/2015	3:05 PM	21.95	-1.00	7.39	.00	.00	.00	.00	.00	.00	.00	.00	.02
280-70408-d-1	06/12/2015	3:10 PM	22.40	-1.00	7.80	.00	583.72	583.72	.00	.00	.00	5.84	-1.00	.02
280-70408-d-2	06/12/2015	3:15 PM	22.35	-1.00	7.72	.00	417.03	417.03	.00	.00	.00	4.17	-1.00	.02
280-70408-d-3	06/12/2015	3:18 PM	22.26	-1.00	6.17	.00	1.29	1.29	.00	.00	.00	.03	.05	.02
280-70409-d-1	06/12/2015	3:23 PM	22.08	-1.00	7.86	.00	367.83	367.83	.00	.00	.00	3.68	-1.00	.02
280-70286-a-1	06/12/2015	3:28 PM	22.16	-1.00	7.06	.00	63.07	63.07	.00	.00	.00	.63	-1.00	.02
280-70286-a-2	06/12/2015	3:32 PM	22.17	-1.00	6.46	.00	24.23	24.23	.00	.00	.00	.24	-1.00	.02
280-70286-a-3	06/12/2015	3:37 PM	22.23	-1.00	6.80	.00	57.51	57.51	.00	.00	.00	.58	-1.00	.02
280-70286-a-4	06/12/2015	3:41 PM	22.32	-1.00	6.76	.00	39.94	39.94	.00	.00	.00	.40	-1.00	.02
280-70286-a-5	06/12/2015	3:46 PM	22.32	-1.00	7.74	.00	58.23	58.23	.00	.00	.00	.58	-1.00	.02
CCV4	06/12/2015	3:51 PM	22.31	-1.00	10.55	101.75	206.71	3.22	203.49	.00	1.02	2.07	-1.00	.02
CCB4	06/12/2015	3:55 PM	22.40	-1.00	5.80	.00	.51	.51	.00	.00	.00	.02	.04	.02
LCS	06/12/2015	4:00 PM	22.29	-1.00	10.55	100.10	199.58	.00	198.97	.61	1.00	2.00	-1.00	.02
MB	06/12/2015	4:04 PM	22.35	-1.00	5.72	.00	.40	.40	.00	.00	.00	.02	.04	.02

Run Number

3279

Order Number

20150612-2

<u>SampleID</u>	<u>RunDate</u>	<u>RunTime</u>	<u>Temp</u>	<u>cond (uS)</u>	<u>pH</u>	<u>palk-ppm</u>	<u>talk-ppm</u>	<u>bcarb-ppm</u>	<u>carb-ppm</u>	<u>hydr-ppm</u>	<u>(mL) @ 8.3</u>	<u>(mL) @ 4.5</u>	<u>(mL) @ 4.2</u>	<u>Conc (N)</u>
280-70286-a-6	06/12/2015	4:09 PM	22.35	-1.00	7.37	.00	40.24	40.24	.00	.00	.00	.40	-1.00	.02
280-70286-a-7	06/12/2015	4:14 PM	22.46	-1.00	7.74	.00	93.36	93.36	.00	.00	.00	.93	-1.00	.02
280-70286-a-8	06/12/2015	4:19 PM	22.54	-1.00	8.00	.00	151.63	151.63	.00	.00	.00	1.52	-1.00	.02
280-70613-a-1	06/12/2015	4:23 PM	22.46	-1.00	8.38	4.72	246.80	237.36	9.44	.00	.05	2.47	-1.00	.02
DU 280-70613-a-1	06/12/2015	4:27 PM	22.39	-1.00	8.38	4.13	244.51	236.26	8.25	.00	.04	2.45	-1.00	.02
280-70613-a-2	06/12/2015	4:32 PM	22.35	-1.00	8.38	4.88	242.83	233.07	9.77	.00	.05	2.43	-1.00	.02
280-70613-a-3	06/12/2015	4:37 PM	22.42	-1.00	8.30	.19	228.82	228.44	.38	.00	.00	2.29	-1.00	.02
280-70613-a-4	06/12/2015	4:41 PM	22.46	-1.00	8.35	1.68	179.21	175.85	3.36	.00	.02	1.79	-1.00	.02
280-70613-a-5	06/12/2015	4:46 PM	22.51	-1.00	8.32	1.99	305.54	301.57	3.97	.00	.02	3.06	-1.00	.02
280-70296-g-1	06/12/2015	4:53 PM	22.55	-1.00	6.77	.00	1,485.57	1,485.57	.00	.00	.00	14.86	-1.00	.02
CCV5	06/12/2015	4:58 PM	22.64	-1.00	10.39	89.58	198.46	19.30	179.16	.00	.90	1.98	-1.00	.02
CCB5	06/12/2015	5:02 PM	22.58	-1.00	6.01	.00	.64	.64	.00	.00	.00	.02	.04	.02

TestAmerica Denver

Wet Chemistry Data Review Checklist for Gravimetric Methods

Method(s): <i>Z540C-Calcd</i>		Instrument: <i>Bal</i>		SOP #: <i>WC-0064</i>		Analyst: <i>SVC</i>				
Run Date: <i>06/05/15</i>		Prep Batch(s): _____		Analytical Batch: <i>280587</i>						
A. Balance, Oven, and DI Water QC Checks							Yes	No	N/A	2 nd
Was the balance calibration verified before and after processing samples and noted in the "Balance Calibration Log" for the date(s) the samples were processed?							✓			
Was the oven temperature within method requirements and recorded in the "Oven Temperature" logbook for the date(s) the samples were processed?							✓			
Was the daily conductivity check of the deionized water recorded in the "Conductivity Logbook"?							✓			
B. Method Requirements										
If sample is visibly oily, was this noted on the benchsheet?									✓	✓
Was final residue weight within minimum/maximum requirements?							✓			✓
Were the initial and final drying dates and times recorded on the benchsheet and were all samples dried for at least one hour?							✓			✓
C. Sample Results										
TDS/Conductivity ratio or historical data checked?							✓			✓
For % Moisture, was the Final Dried Weight < the Initial Pan Weight or is the result greater than 100%?									✓	✓
Were sample analyses done within holding time? If no, create HTV NCM. NCM#							✓			✓
Were special client requirements met?							✓			✓
Were data that were manually transcribed from instrument printouts into TALS verified 100% including dilution factors, significant figures and units?							✓			✓
Do the prep and analysis dates in TALS reflect the actual dates?							✓			✓
STD/True Value information is updated and included?							✓			✓
D. Preparation/Matrix QC										
Method blank < 1/2 RL or all reported samples > 10 X RL? - (HEM, SGT HEM, TDS, TSS MB <RL)							✓			✓
Method blank < 1/2 RL or NCM provided? - (HEM, SGT HEM, TDS, TSS MB <RL)							✓			✓
LCS/LCSD run for batch and within QC limits?							✓			✓
DUP run for batch and RPD < 20% for samples > 5 X RL?							✓			✓
DUP run at required frequency and RPD within acceptance limits or NCM written?							✓			✓
Menu or Tab	Check					1 st	2 nd			
Analyst Desktop	Create or and open batch									
View Batch Info	Confirm all fields are populated					✓	✓			
	Edit Analyst ID as is appropriate					✓	✓			
Run log	Verify the correct samples and QC are run at the correct frequency (i.e., 10 samples per CCV)					✓	✓			
Sample List	In edit mode, if prompted to process samples, select "Yes"					✓	✓			
	Confirm samples are identified (Blue P Icon)					✓	✓			
	Confirm correct analysis date and time are listed					✓	✓			
	Confirm samples have the correct dilution factors					✓	✓			
	Confirm samples have the correct method chain assigned					✓	✓			
Worksheet	Confirm that solid samples have the % moisture listed					N/A	N/A			
	Populate all appropriate fields in the worksheet. Initial Amount, Final Amount, pH, etc.					✓	✓			
Reagents	Confirm that data are entered correctly. Verify pH is recorded when appropriate for the method.					✓	✓			
	Confirm reagents are correct and properly associated with QC samples. Confirm that reagent amounts are correct. If reagents are new verify that the correct COA has been attached to the source standard					✓	✓			
Results	Check for special instructions (Login, Method and Sample comments) - red notebook icon					✓	✓			
	Check for any QC failures					✓	✓			
	Set status for samples based on QC and sample results info (i.e., set to primary analysis with passing QC or reject samples without passing QC or sample that are over-range.					✓	✓			
	Address any results that are reported without passing QC with an NCM.					✓	✓			
QC Links	Confirm QC links are correct.					✓	✓			
Hist. Data Check	Check historical data. Print charts for outliers. Take corrective action as is appropriate					✓	✓			
Sample List	Re-calculate data and set to appropriate review status (1 st or 2 nd level review)					✓	✓			
	Scan and attach raw data & save batch					✓	✓			
Analyst: <i>Scott Cherny</i>	Date: <i>06/09/15</i>	Analyst Comments: _____								
2nd Level Reviewer: <i>Christy M. Brown</i>	Date: <i>6/10/15</i>	Reviewer Comments: _____								

2540C_Calcd Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 280-280587

Analyst: Cherry, Scott V

Batch Open: 6/5/2015 2:21:01PM

Batch End:

06/25/2015

Solids, Total Dissolved (TDS)

Conductivity

	Input Sample Lab ID (Analytical Method)	SDG (Job #)	Matrix	Initial Amount	Final Amount	Due Date	Analytical TAT	Div Rank	Comments	Output Sample Lab ID
1	MB~280-280587/1 N/A	N/A		100	0.91	N/A	N/A	N/A		
2	LCS~280-280587/2 N/A	N/A		100	—	N/A	N/A	N/A		
3	280-70183-A-2 (2540C_Calcd)	N/A (280-70183-1)	Water	100	437	6/22/15	12_Days	4		
4	280-70183-A-2 (2540C_Calcd)	N/A (280-70183-1)	Water	100	437	6/22/15	12_Days	4		
5	280-70183-C-1 (2540C_Calcd)	N/A (280-70183-1)	Water <i>54L</i>	100 50	2200	6/22/15	12_Days	4		
6	280-70183-A-3 (2540C_Calcd)	N/A (280-70183-1)	Water <i>6/5/15</i>	50	134	6/22/15	12_Days	4		
7	280-70183-B-4 (2540C_Calcd)	N/A (280-70183-1)	Water	100	460	6/22/15	12_Days	4		
8	280-70186-A-1 (2540C_Calcd)	N/A (280-70186-1)	Water	100	480	6/22/15	12_Day_Rush	2		
9	280-70186-A-2 (2540C_Calcd)	N/A (280-70186-1)	Water	100	430	6/22/15	12_Day_Rush	2		
10	280-70186-A-3 (2540C_Calcd)	N/A (280-70186-1)	Water	50	715	6/22/15	12_Day_Rush	2		
11	280-70186-A-4 (2540C_Calcd)	N/A (280-70186-1)	Water	50	1330	6/22/15	12_Day_Rush	2		
12	280-70279-A-6 (2540C_Calcd)	N/A (280-70279-1)	Water	100	590	6/23/15	12_Days	4		
13	280-70293-C-1 (2540C_Calcd)	N/A (280-70293-1)	Water	100	410	6/17/15	8_Days	2		
14	280-70256-A-2 (2540C_Calcd)	N/A (280-70256-1)	Water	25	2675	6/19/15	12_Day_Rush	2		

Page 1721 of 1738

2540C_Calcd Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 280-280587

Analyst: Cherry, Scott V

Batch Open: 6/5/2015 2:21:01PM

Batch End:

15	280-70256-E-4 (2540C_Calcd)	N/A (280-70256-1)	Water	5	28900	6/19/15	12_Day_Rush	2	
16	280-70256-E-5 (2540C_Calcd)	N/A (280-70256-1)	Water	5	4270	6/19/15	12_Day_Rush	2	
17	280-70256-C-6 (2540C_Calcd)	N/A (280-70256-1)	Water	10	5620	6/19/15	12_Day_Rush	2	
18	280-70296-G-1 N/A	N/A		10	8630	N/A	N/A	N/A	
19	280-70191-A-1 (2540C_Calcd)	N/A (280-70191-1)	Water	50	1073	6/22/15	12_Day_Rush	2	
20	280-70191-A-2 (2540C_Calcd)	N/A (280-70191-1)	Water	50	1900	6/22/15	12_Day_Rush	2	
21	280-70191-A-4 (2540C_Calcd)	N/A (280-70191-1)	Water	50	708	6/22/15	12_Day_Rush	2	
22	280-70191-A-5 (2540C_Calcd)	N/A (280-70191-1)	Water	100	971	6/22/15	12_Day_Rush	2	
23	280-70191-A-3 (2540C_Calcd)	N/A (280-70191-1)	Water	100	955	6/22/15	12_Day_Rush	2	
24	280-70191-A-3 (2540C_Calcd)	N/A (280-70191-1)	Water	100	955	6/22/15	12_Day_Rush	2	

06/25/2015

Page 1722 of 1738

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Batch Number: 280341 Batch Start Date: 06/04/15 11:45 Batch Analyst: Jewell, Connie C

Batch Method: 7196A Batch End Date: _____

Lab Sample ID	Client Sample I	Method Chain	Basis	InitialAmount	FinalAmount	CalcMsg	CR6 Int cal 00598		
IC 280-280341/1		7196A		10 mL	10 mL	Color Resp. is Blank	0.1 mL		
IC 280-280341/2		7196A		10 mL	10 mL	Color Resp. is Blank	0.2 mL		
IC 280-280341/3		7196A		10 mL	10 mL	Color Resp. is Blank	0.5 mL		
IC 280-280341/4		7196A		10 mL	10 mL	Color Resp. is Blank	1 mL		
IC 280-280341/5		7196A		10 mL	10 mL	Color Resp. is Blank	2 mL		

Batch Notes	
Color Reagent ID Number	CR^6ColoR_00190
Sulfuric Acid Reagent ID Number	50%H2SO4_00020

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

7196A

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Batch Number: 280576 Batch Start Date: 06/05/15 11:39 Batch Analyst: Jewell, Connie C

Batch Method: 7196A Batch End Date: _____

Lab Sample ID	Client Sample I	Method Chain	Basis	InitialAmount	FinalAmount	ColorBlk	UnCorResp	CalcMsg	Initial pH
ICV 280-280576/1		7196A		10 mL	10 mL		0.062 Absorbance	OK w/o Correction	
ICB 280-280576/2		7196A		10 mL	10 mL		0.002 Absorbance	OK w/o Correction	
LCS 280-280576/3		7196A		10 mL	10 mL		0.117 Absorbance	OK w/o Correction	
LCSD 280-280576/4		7196A		10 mL	10 mL		0.115 Absorbance	OK w/o Correction	
MB 280-280576/5		7196A		10 mL	10 mL		0.001 Absorbance	OK w/o Correction	
280-70279-A-6	54400-MW55D-06 15	7196A	T	10 mL	10 mL	0.006 Absorbance	0.004 Absorbance	OK	6 SU
280-70279-A-6 DU	54400-MW55D-06 15	7196A	T	10 mL	10 mL	0.006 Absorbance	0.006 Absorbance	OK	
280-70279-A-6 MS	54400-MW55D-06 15	7196A	T	10 mL	10 mL	0.006 Absorbance	0.124 Absorbance	OK	
280-70279-A-6 MSD	54400-MW55D-06 15	7196A	T	10 mL	10 mL	0.006 Absorbance	0.123 Absorbance	OK	
CCV 280-280576/10		7196A		10 mL	10 mL		0.123 Absorbance	OK w/o Correction	
CCB 280-280576/11		7196A		10 mL	10 mL		0.005 Absorbance	OK w/o Correction	

Lab Sample ID	Client Sample I	Method Chain	Basis	Final pH	CR6 ICV int 00907	CR6 spike sou 00521			
ICV 280-280576/1		7196A			0.5 mL				
ICB 280-280576/2		7196A							
LCS 280-280576/3		7196A				0.1 mL			
LCSD 280-280576/4		7196A				0.1 mL			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

7196A

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Batch Number: 280576 Batch Start Date: 06/05/15 11:39 Batch Analyst: Jewell, Connie C

Batch Method: 7196A Batch End Date: _____

Lab Sample ID	Client Sample I	Method Chain	Basis	Final pH	CR6 ICV int 00907	CR6 spike sou 00521			
MB 280-280576/5		7196A							
280-70279-A-6	54400-MW55D-06 15	7196A	T	2 SU					
280-70279-A-6 DU	54400-MW55D-06 15	7196A	T						
280-70279-A-6 MS	54400-MW55D-06 15	7196A	T			0.1 mL			
280-70279-A-6 MSD	54400-MW55D-06 15	7196A	T			0.1 mL			
CCV 280-280576/10		7196A			1 mL				
CCB 280-280576/11		7196A							

Batch Notes	
Color Reagent ID Number	CR^6ColorR_00190
Pipette ID	wc5000n, wc1000cj,wc200y
Sulfuric Acid Reagent ID Number	50%H2SO4_00020

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Batch Number: 277676 Batch Start Date: 05/15/15 11:32 Batch Analyst: Benson, Alex F

Batch Method: 9056 Batch End Date: _____

Lab Sample ID	Client Sample I	Method Chain	Basis	InitialAmount	FinalAmount	CalcMsg	IC CAL c1/so4 00047	IC Cal low 00085	
STD 280-277676/2		9056		5 mL	5 mL	OK	0.02 mL	0.02 mL	
STD 280-277676/3		9056		5 mL	5 mL	OK	0.05 mL	0.05 mL	
STD 280-277676/4		9056		5 mL	5 mL	OK	0.1 mL	0.1 mL	
STD 280-277676/5		9056		5 mL	5 mL	OK	1.2 mL	0.4 mL	
STD 280-277676/6		9056		5 mL	5 mL	OK	2.4 mL	0.8 mL	
STD 280-277676/7		9056		5 mL	5 mL	OK	4 mL	1 mL	

Batch Notes	
Batch Comment	pipettes: 100-C, 1000-BB, 5ML-IC
Regeneration Solution Lot	141060605014
Perform Calculation (0=No, 1=Yes)	1

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

9056

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Batch Number: 280541 Batch Start Date: 06/05/15 09:57 Batch Analyst: Phan, Thu L

Batch Method: 9056 Batch End Date: _____

Lab Sample ID	Client Sample I	Method Chain	Basis	InitialAmount	FinalAmount	CalcMsg	IC CAL c1/so4 00051	IC Cal low 00092	IC CL ICV 00010
ICV 280-280541/1		9056		5 mL	5 mL	OK			0.4 mL
ICB 280-280541/2		9056		5 mL	5 mL	OK			
MRL 280-280541/3		9056		5 mL	5 mL	OK	0.05 mL	0.02 mL	
LCS 280-280541/4		9056		5 mL	5 mL	OK			
LCSD 280-280541/5		9056		5 mL	5 mL	OK			
MB 280-280541/6		9056		5 mL	5 mL	OK			
280-70279-A-6 DU	54400-MW55D-06 15	9056	T	5 mL	5 mL	OK			
280-70279-A-6 MS	54400-MW55D-06 15	9056	T	5 mL	5 mL	OK			
280-70279-A-6 MSD	54400-MW55D-06 15	9056	T	5 mL	5 mL	OK			
CCV 280-280541/18		9056		5 mL	5 mL	OK			
CCB 280-280541/19		9056		5 mL	5 mL	OK			

Lab Sample ID	Client Sample I	Method Chain	Basis	IC ICV 5 00080	IC LCS 00279	IC SO4 ICV 00014	ICMS/MSD WEEK 00323		
ICV 280-280541/1		9056		0.4 mL		0.4 mL			
ICB 280-280541/2		9056							
MRL 280-280541/3		9056							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

9056

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Batch Number: 280541 Batch Start Date: 06/05/15 09:57 Batch Analyst: Phan, Thu L

Batch Method: 9056 Batch End Date: _____

Lab Sample ID	Client Sample I	Method Chain	Basis	IC ICV 5 00080	IC LCS 00279	IC SO4 ICV 00014	ICMS/MSD WEEK 00323		
LCS 280-280541/4		9056			5 mL				
LCSD 280-280541/5		9056			5 mL				
MB 280-280541/6		9056							
280-70279-A-6	54400-MW55D-06 15	9056	T						
280-70279-A-6 DU	54400-MW55D-06 15	9056	T						
280-70279-A-6 MS	54400-MW55D-06 15	9056	T				0.05 mL		
280-70279-A-6 MSD	54400-MW55D-06 15	9056	T				0.05 mL		
CCV 280-280541/18		9056			5 mL				
CCB 280-280541/19		9056							

Batch Notes	
Batch Comment	pipets: 5ml-ic, 1000z, 100c
Regeneration Solution Lot	141060605014
Perform Calculation (0=No, 1=Yes)	1

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Batch Number: 277677 Batch Start Date: 05/15/15 11:32 Batch Analyst: Benson, Alex F

Batch Method: 9056A Batch End Date: _____

Lab Sample ID	Client Sample I	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL c1/so4 00047	IC Cal low 00085		
STD 280-277677/2		9056A		5 mL	5 mL	0.02 mL	0.02 mL		
STD 280-277677/3		9056A		5 mL	5 mL	0.05 mL	0.05 mL		
STD 280-277677/4		9056A		5 mL	5 mL	0.1 mL	0.1 mL		
STD 280-277677/5		9056A		5 mL	5 mL	1.2 mL	0.4 mL		
STD 280-277677/6		9056A		5 mL	5 mL	2.4 mL	0.8 mL		
STD 280-277677/7		9056A		5 mL	5 mL	4 mL	1 mL		

Batch Notes	
Pipette ID	100-C, 1000-BB, 5ML-IC
Regeneration Solution Lot	141060605014

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

9056A

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Batch Number: 280542 Batch Start Date: 06/05/15 09:57 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date: _____

Lab Sample ID	Client Sample I	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL c1/so4 00051	IC Cal low 00092	IC CL ICV 00010	IC ICV 5 00080
ICV 280-280542/1		9056A		5 mL	5 mL			0.4 mL	0.4 mL
ICB 280-280542/2		9056A		5 mL	5 mL				
MRL 280-280542/3		9056A		5 mL	5 mL	0.05 mL	0.02 mL		
LCS 280-280542/4		9056A		5 mL	5 mL				
LCSD 280-280542/5		9056A		5 mL	5 mL				
MB 280-280542/6		9056A		5 mL	5 mL				
280-70279-A-6 DU	54400-MW55D-06 15	9056A	T	5 mL	5 mL				
280-70279-A-6 MS	54400-MW55D-06 15	9056A	T	5 mL	5 mL				
280-70279-A-6 MSD	54400-MW55D-06 15	9056A	T	5 mL	5 mL				
CCV 280-280542/18		9056A		5 mL	5 mL				
CCB 280-280542/19		9056A		5 mL	5 mL				

Lab Sample ID	Client Sample I	Method Chain	Basis	IC LCS 00279	IC SO4 ICV 00014	ICMS/MSD WEEK 00323			
ICV 280-280542/1		9056A			0.4 mL				
ICB 280-280542/2		9056A							
MRL 280-280542/3		9056A							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

9056A

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Batch Number: 280542 Batch Start Date: 06/05/15 09:57 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date: _____

Lab Sample ID	Client Sample I	Method Chain	Basis	IC LCS 00279	IC SO4 ICV 00014	ICMS/MSD WEEK 00323			
LCS 280-280542/4		9056A		5 mL					
LCSD 280-280542/5		9056A		5 mL					
MB 280-280542/6		9056A							
280-70279-A-6	54400-MW55D-06 15	9056A	T						
280-70279-A-6 DU	54400-MW55D-06 15	9056A	T						
280-70279-A-6 MS	54400-MW55D-06 15	9056A	T			0.05 mL			
280-70279-A-6 MSD	54400-MW55D-06 15	9056A	T			0.05 mL			
CCV 280-280542/18		9056A		5 mL					
CCB 280-280542/19		9056A							

Batch Notes	
Pipette ID	5ml-ic, 1000z, 100c
Regeneration Solution Lot	141060605014

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

9056A

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Batch Number: 281711 Batch Start Date: 06/12/15 11:39 Batch Analyst: Jewell, Connie C

Batch Method: SM 2320B Batch End Date: _____

Lab Sample ID	Client Sample I	Method Chain	Basis	CalcMsg	Alk daily lcs 00476				
LCS 280-281711/4		SM 2320B		InitialAmount is blank	10 mL				
MB 280-281711/5		SM 2320B		InitialAmount is blank					
CCV 280-281711/16		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-281711/17		SM 2320B		InitialAmount is blank					
280-70279-D-6	54400-MW55D-06 15	SM 2320B	T	InitialAmount is blank					
CCV2 280-281711/28		SM 2320B		InitialAmount is blank	10 mL				
CCB2 280-281711/29		SM 2320B		InitialAmount is blank					

Batch Notes	
pH Buffer 1 ID	pH2buffer_00035
pH Buffer 2 ID	pH4buffer_00121
pH Buffer 3 ID	pH7buffer_00142
pH Buffer 4 ID	pH10buffer_00097
pH Buffer 5 ID	pH12buffer_00084
pH Buffer 6 ID	ICV_00060
Sulfuric Acid Lot Number	0.02H2SO4_00170
Sulfuric Acid Vendor	Ricca
Nominal Amount Used	10 mL
Pipette ID	wc5000n
Probe ID	PCe 86 pH 1105 jun14
Normality of first Titrant	0.02 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

SM 2320B

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Batch Number: 280587 Batch Start Date: 06/05/15 14:21 Batch Analyst: Cherry, Scott V

Batch Method: SM 2540C Batch End Date: _____

Lab Sample ID	Client Sample I	Method Chain	Basis	Conductivity	CrucibleID	InitialAmount	TareWeight	Weight1	Weight2
MB 280-280587/1		SM 2540C		0.91 umhos/cm	1	100 mL	65.5450 g	65.5447 g	65.5448 g
LCS 280-280587/2		SM 2540C			2	100 mL	65.6469 g	65.6968 g	65.6964 g
280-70279-A-6	54400-MW55D-06 15	SM 2540C	T	590 umhos/cm	12	100 mL	66.8734 g	66.9193 g	66.9194 g

Lab Sample ID	Client Sample I	Method Chain	Basis	WeightOne%Diff	WeightTwo%Diff	Weight4OK	Residue	Residue2	Residue3
MB 280-280587/1		SM 2540C		Pass No Unit	N/A No Unit	N/A	-0.0003 g	-0.0002 g	N/A g
LCS 280-280587/2		SM 2540C		Pass No Unit	N/A No Unit	N/A	0.0499 g	0.0495 g	N/A g
280-70279-A-6	54400-MW55D-06 15	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0459 g	0.046 g	N/A g

Lab Sample ID	Client Sample I	Method Chain	Basis	Residue4	FinalAmount	CalcMsg	TDS LCS_00536 00058		
MB 280-280587/1		SM 2540C		N/A g	100 mL	OK			
LCS 280-280587/2		SM 2540C		N/A g	100 mL	OK	100 mL		
280-70279-A-6	54400-MW55D-06 15	SM 2540C	T	N/A g	100 mL	OK			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

SM 2540C

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Batch Number: 280587 Batch Start Date: 06/05/15 14:21 Batch Analyst: Cherry, Scott V

Batch Method: SM 2540C Batch End Date: _____

Batch Notes	
Balance ID	D91301
Conductivity Meter ID	Orion Star A112
Constant Weight (WT4) Temp Out	180 Degrees C
Constant Weight (WT2) Date/Time in Oven	06/06/15 1103 sws
Constant Weight (WT2) Date/Time Out	06/08/15 0902 svc
Constant Weight (WT2) Temp In	180 Degrees C
Constant Weight (WT2) Temp Out	180 Degrees C
Uncorrected CW (Wt2) Temp In	180 Degrees C
Uncorrected CW (Wt2) Temp Out	180 Degrees C
Constant Weight (WT3) Date/time In	06/08/15 1152 svc
Constant Weight (WT3) Date/Time Out	06/08/15 1358 svc
Constant Weight (WT3) Temp In	180 Degrees C
Constant Weight (WT3) Temp Out	180 Degrees C
Uncorrected CW (Wt3) Temp In	180 Degrees C
Uncorrected CW (Wt3) Temp Out	180 Degrees C
Constant Weight (WT4) Date/Time in Oven	06/08/15 1615 svc
Constant Weight (WT4) Date/Time Out	06/08/15 1716 cml
Constant Weight (WT4) Temp In	180 Degrees C
Uncorrected CW (WT4) Temp In	180 Degrees C
Uncorrected CW (WT4) Temp Out	180 Degrees C
Corrected Temperature in Oven	180 Degrees C
Corrected Temperature out of Oven	180 Degrees C
Date/Time Samples placed in Oven	06/05/15 1515 svc
Date/Time Samples removed from Oven	06/06/15 0730 sws
Filter Paper Lot Number	R5AA58623
Nominal Amount Used	100 mL
Oven ID	A
Oven Temperature Verification	180 Degrees C
Pipette ID	5000XX
ID number of the thermometer	14-983-17C

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

SM 2540C

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-70279-1

SDG No.: _____

Batch Number: 280587 Batch Start Date: 06/05/15 14:21 Batch Analyst: Cherry, Scott V

Batch Method: SM 2540C Batch End Date: _____

Uncorrected In Temperature	180 Degrees C
Uncorrected Out Temperature	180 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

SM 2540C

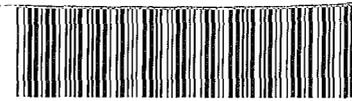
Shipping and Receiving Documents

TestAmerica Denver

4955 Yarrow Street
 Arvada, CO 80002
 Phone (303) 736-0100 Fax (303) 431-7171

Chain of Custody F

280-70279 Chain of Custody



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: A. Zabierek	Lab PM: Walker, Elaine M	Carrier Tracking No(s): Fed ex 8065 2457 2298	COC No:
Client Contact: Anna Zabierek	Phone: 312 346 4474	E-Mail: elaine.walker@testamericainc.com		Page: <u>1</u> of <u>1</u>

Company: GSI Environmental, Inc	Analysis Requested	Job #: 3969-211
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Address: 9600 Great Hills Trail, Ste 350E	Due Date Requested:	Field Filtered Sample (Yes or No) <input type="checkbox"/> Perform MS/MSD (Yes or No) <input type="checkbox"/> 8260B_DOD5 - VOCs - Water 8010C_DOD5 - Total Fe, Ca, K, Mg, Na - Water 6010B - Dissolved Fe (Field Filtered) - Water 9086 28D - Sulfate/Chloride, 9086 48HR - Nitrate/Nitrite - W SM4500SO3_B - Sulfite - Water 365.1 - Phosphate - Water 2320B - Alkalinity - Water 2540C_Calcd - TDS - Water 7196A - Hexavalent Chromium - Water R9K_175 - Dissolved Gases (Methane/Ethane/Ethene) - W 8260_AFCEE - VOCs (Terracorres) - Soil 9060A - Total Organic Carbon - Soil Percent Moisture - Soil Total Number of Containers:
City: Austin	TAT Requested (days): rushed or specified	
State, Zip: TX, 78759	PO #: Purchase Order Requested	
Phone: 512-346-4474(Tel)	WO #: Project #: 3969-211	
Email: alw@gsi-net.com	SSOW#:	

Project Name: GSI - McConnell Air Force Base, Kansas	Site: SWMU 207	Other:
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Sample Identification	Sample Date	Sample Time	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Preservation Code	A	D	D	N	N	S	N	N	A	E	F	N	N	Special Instructions/Note:			
54403-TB19-0615	6.4.15		A	W	X													Short Holds: Hex. Chromium (24 hr), Nitrate/Nitrite, Sulfite(48 hr)			
54402-EB18-0615	↓	0925	↓	↓	X													Rush			
54400-MW43-0615		0915			X																
54400-MW56-0615		1155			X																
54400-MW55S-0615		1405			X																
54400-MW55D-0615		1510			X			X	X	X	X	X	X	X	X	X					Rush

Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months
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Deliverable Requested: I, II, III, IV, Other (specify) Level IV	Special Instructions/QC Requirements:
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Empty Kit Relinquished by: [Signature]	Date: 6-4-15/1735	Time: [Signature]	Method of Shipment:
Relinquished by: [Signature]	Date/Time: 6/5/14 7:00	Company: [Signature]	Received by: [Signature]
Relinquished by:	Date/Time:	Company:	Received by:
Relinquished by:	Date/Time:	Company:	Received by:

Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.8 to 0.1 IR#5 DW 6/5/15
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Login Sample Receipt Checklist

Client: GSI Environmental, Inc

Job Number: 280-70279-1

Login Number: 70279
List Number: 1
Creator: White, Denise E

List Source: TestAmerica Denver

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	